

AMERICAN UNIVERSITY OF BEIRUT

Image Schemas and Prepositions in the Pauline
Corpus

by
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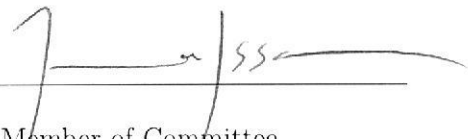
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An Abstract of the Thesis of

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Prepositions in the Greek New Testament can convey multiple abstract meanings usually based on a single concrete meaning; at the same time, multiple prepositions with different concrete meanings can convey the same abstract meaning. The difficulty of explaining the abstract meanings in terms of the concrete can be mitigated through cognitive linguistics which approaches language in a manner that emphasizes the importance of meaning and ties it to human cognition, experience, and perspective. It defines the concretely based abstract meanings of prepositions as metaphors, and provides explanatory constructs to navigate the path from concrete meaning to abstract meaning which include: (1) image schemas, a catalogue of human interactions with the physical world (e.g., Path, Containment, Location), and (2) conceptual metaphors which form a large body of sometimes interrelated expressions that articulate abstract concepts in terms of the physical (e.g., “Purposes are destinations” and “Life is a journey”). Having these tools allows us to speak of abstract prepositions as metaphoric prepositions. We combine our cognitive approach with the Metaphor Identification Procedure (MIP) which provides a systematic means of capturing a linguistic metaphor, which it defines as the contrast between contextual meaning (abstract) and basic meaning (concrete). We also conduct our inquiry within a corpus linguistic context to ensure a reliable sample of data for our conclusions. The focus of our inquiry is the Pauline corpus, which consists of thirteen of the letters in the New Testament. This corpus consists of nearly 30,000 words in Greek and 40,000 in English, a reliable size for a specialized corpus. Our inquiry addresses all prepositions found therein. Our intent is to characterize the confounding mystery of the prepositions in terms of image schemas with the help of conceptual metaphors to explain the connection between contextual and basic meanings. This culminates in an analysis of the their translation into English through a procedure that we derive which is rooted in MIP’s basic/contextual distinction and explains changes

in metaphor (from Greek to English) in terms of image schemas. In contrast with research that focuses on single prepositions or a small number of related prepositions, this study observes all prepositions in order to form a high level view of the use of prepositions in the Pauline corpus.

We find that image schemas simplify the explanation of prepositional metaphors because (1) they group multiple meanings around a single image schema which provides a skeleton on which to build an explanation for the prepositional metaphor, (2) although multiple image schemas are associated with a single preposition there is usually one that is far more frequently associated with it than the others, and (3) aligning a specific concrete meaning with a specific abstract meaning results in identifying a single image schema or at most two related image schemas.

An image schema based perspective of contextual meanings reveals that a multiplicity of construals for a meaning results in multiple image schemas. Image schemas are associated with multiple meanings when they are (1) general (i.e., Location), (2) have multiple applications (i.e., Container), and (3) have multiple components and aspects (i.e., Path). On the other hand, certain image schemas can be nearly synonymous with a meaning due to their specialized and specific nature (i.e., *quantity* and the Scale image schema). We also observed that basic meanings are not always synonymous with the image schema that bridges them to the metaphoric contextual meanings when (1) specific spatial meanings indicate location (e.g., “above” refers to the location below it), (2) the end result of motion indicates location (e.g., “into” indicates the final position of “in”), or (3) location or motion refer to spatial correspondence (e.g., linkage or matching of two objects positioned opposite one another). With respect to the role of conceptual metaphor in explaining how an image schema bridges the contextual and basic meaning, we find that the vast majority of the metaphoric prepositions (over 90% of prepositions and over 90% of their occurrences in the corpus) can be explained fully, partially, or indirectly with conceptual metaphors. The analysis of the translation of metaphoric prepositions shows that 44.67% of the corpus is translated with basic meanings that preserve the metaphor even when a basic meaning is not a recommended gloss. 26.10% of the corpus is translated with a basic meaning not corresponding to the original meaning (i.e., “in” translated as “by”), the general pattern being that of switching the underlying image schema (using an English metaphor instead of a Greek metaphor).

Based on the observations from the overview of the MIP and image schema analysis, we conclude that the cognitive approach mitigates the difficulty of explaining prepositional metaphors, with the remaining factors being (1) meanings/metaphors lingering from the Classical Greek period, (2) aspects of the contextual meaning that cannot be mapped to the basic meaning, and (3) interrelated causative meanings (e.g., manner, instrument, agent). Based on this, it is calculated that 63% of the corpus is vulnerable to these difficulties, and that if causative meanings are grouped as a single meaning, the elusiveness of prepositions is localized to 40.22% of the corpus.

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Chapter 1

Introduction

When it comes to understanding the text of the Bible, readers hang on every word. Every word counts, even prepositions. Much is at stake when one reads the Bible, especially for those who regard it as the source of truth, doctrine, and life practice. Even for those who may be detached from the text and are satisfied with only a purely intellectual understanding, every word counts, even prepositions. However, these words have proved slippery, difficult to grasp. Heinfetter (1850, p. 10) makes the following observations that summarize the confounding mystery of prepositions:

- they can convey various senses of meaning, even opposing ones
- these senses are “dependent on, and regulated by, the requirements of the context”
- the same sense can be conveyed by different prepositions that have different concrete meanings
- a Greek preposition can be translated as anything consistent with its concrete meaning

Exploring the concrete meanings of prepositions can be likened to swimming in a lake, with a limited space and visible boundaries, but exploring the abstract meanings of prepositions, according to Heinfetter’s observations, is like being lost out in the turbulent sea.

It’s obvious that when it comes to interpreting or translating prepositions, one is taking a leap from the concrete to the abstract. However, until recently, this leap was being explored apart from a framework that defined and enumerated cognitive constructs that facilitate this leap. The framework we are hinting at is *cognitive linguistics* which approaches language in a manner that emphasizes the importance of meaning and ties it to human cognition, experience, and perspective. Some of the tools from within this framework are especially suitable for exploring prepositions and their abstract meanings. Two of these tools are

(1) image schemas, a catalogue of human interactions with the physical world (e.g., based on PATH image schema we say “where did that idea come from?”), and (2) conceptual metaphor theory (CMT) which considers metaphor to be pervasive in language and thought, and grounded in physical experience, as opposed to being a literary or poetic device (e.g., based on the conceptual metaphor LIFE IS A JOURNEY we say “I am at a fork in the road”). Having these tools allows us to speak of abstract prepositions as metaphoric prepositions.

Still within a framework where observations are made through the lens of image schemas and conceptual metaphors, one needs a systematic method and statistical tabulations to carry out analysis consistently and to capture a quantified image of qualitative observations. The metaphor identification procedure (MIP) gives us systematic steps for capturing a linguistic metaphor and allows us to add cognitive linguistic analysis as an extension to the procedure. Corpus linguistics allows our conclusions to be based on a body of work rather than a handful of randomly or selectively chosen instances. By adding these two our methodology, we can have a broad perspective based on sturdy conclusions.

In this inquiry into prepositions, we focus on an important body of work within the Bible, the letters of Paul the Apostle, often referred to as the Pauline corpus. These thirteen letters form a small corpus of nearly 30,000 words in Greek and 40,000 in English, depending on the text and translation considered. In addition to being a small corpus, the Pauline letters also form a closed corpus and our inquiry addresses all prepositions found in it.

In this corpus, our intent is to characterize the confounding mystery of prepositions in terms of image schemas with the help of conceptual metaphor theory to explain the connection between the physical and metaphoric meanings based on the prepositions that are identified as metaphoric via MIP. This culminates in an analysis of the translation of these Greek prepositions into English via a procedure derived from MIP and image schemas.

New Testament research has produced works that apply cognitive linguistic analysis to the First Epistle of Peter (Howe, 2006), the Gospel of John (Stovell, 2012), the Synoptic Gospels and the Gospel of Thomas (Liebenberg, 2001), and the cultic metaphors of Paul the Apostle (Gupta, 2010; Finlan, 2004). In addition, a set of unpublished, in-process works have begun which focus on single prepositions, pairs of prepositions, and groups of related prepositions from a cognitive perspective.¹ In contrast, this study observes all prepositions in order to form a high level view of the use of prepositions in the Pauline corpus.

¹These works were presented at the *Tyndale House Workshop in Greek Prepositions* (2017). The workshop explored a cognitive approach to interpreting Greek prepositions. At the time of writing, the proceedings are yet to be published. The work on this thesis started more than three years prior to the workshop.

1.1 Research Questions

The current inquiry is of an exploratory nature that seeks to gain a macro-level view of its terrain, the prepositions of the Pauline Corpus. It identifies the metaphoric usages of prepositions and makes both quantitative and qualitative observations. Its aim is to capture the cognitive ambiguity of spatial prepositions that are used metaphorically, often in multiple ways, and to find a path to greater clarity based on the application of a version of the Metaphor Identification Procedure (MIP) that considers image schemas and conceptual metaphors.

The inquiry is guided by the following questions:

1. How can image schemas and MIP be used to reduce the ambiguity of prepositions?
2. How do image schemas bridge basic and contextual meanings?
3. How do conceptual metaphors relate to the image schemas?
4. How does translation to English preserve the preposition and reflect the metaphor identified in the Greek text?

Chapter 2

Literature Review

As previously mentioned, the methodology employed in this study is rooted in cognitive linguistics, but in particular Image Schemas and Conceptual Metaphor Theory (CMT); it also utilizes the Metaphor Identification Procedure (MIP) along with a corpus linguistic approach to drive its analysis. This chapter covers literature that is relevant to these components of the methodology and shows how MIP as a procedure and corpus linguistics as a methodology, raise issues and bring insights not addressed in the theoretical realm.

2.1 Image Schemas

Image schemas are units of cognition that represent basic human interactions with the world: “bodily movements through space, ... manipulation of objects, [and] ... perceptual interactions” (Johnson, 1987). Johnson defines them as “recurrent patterns, shapes, and regularities in, or of actions, perceptions, and conceptions” that organize human experience in a comprehensible manner. They are categorized under abstract notions such as spatial motion (e.g., containment, path), force (e.g., attraction, removal of restraint), balance (e.g., equilibrium, axis balance), and transformation (e.g., path to endpoint, rotation) (Johnson, 1987; Lakoff, 1987).

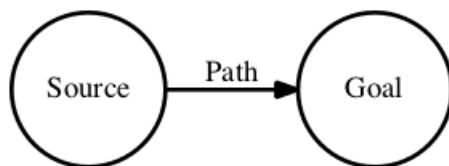


Figure 2.1: PATH image schemas.

Image schemas consist of a minimal and sufficient number of parts and relations that form abstractions that adequately represent the specific situations they subsume. For example, the PATH image schema (Figure 2.1) consists of source, path, and goal; but it does not specify the length, width, or straightness of the path, nor does it specify whether the path is indoor, outdoor, on the ground, or in the air. Furthermore, graphical representations such as the one above cannot be equated with the actual image schema; they are merely references to an abstract notion that can be represented in many ways.

Image schemas do not form a closed set; since their introduction by Lackoff and Johnson in their respective works, there have been differing lists of image schema with scholars adding to the set (Hampe, 2005). Furthermore, their definitions are not devoid of discrepancies and variations. Mandler and Cánovas (2014) consider image schemas to represent simple spatial events and that they are composed of spatial primitives and are part of schematic integrations. Their view separates out image schemas into three distinct cognitive structures. Thus, rather than simply referring to the PATH image schema, they consider PATH-TO as a spatial primitive, PATH-TO-THING as an image schema, and abstract perceptions of purpose or result, which are based on image schemas, as schematic integrations. This model is backed by findings that show that these structures are acquired in their stated order throughout stages of infant/child development. In his proposal for more clarity and precision in defining image schemas, Grady (2005) characterizes them as “mental representations of *fundamental units of sensory experience*.” Since this definition leaves out certain image schemas, he introduces an additional category, *response schemas*, to include image schemas that go beyond sensory experience. For example, SCALE includes the notion of measuring which is more of a mathematical than purely sensory experience, but it builds on PATH which qualifies as an image schema.

The distinctions introduced by the works introduced in the above paragraph are important for the purpose of understanding image schemas, but this inquiry does not incorporate them specifically into the research questions or analysis. It uses the ISCAT (Image Schema Catalogue) database (Hurtienne, 2007) which contains a list of basic image schemas needed for the analysis and assigns them categories that offer a sufficient level of distinction between different types. Below is a table containing all the categories and image schemas of ISCAT; the categories of image schemas relevant to our analysis are the first five (BASIC, SPACE, FORCE, CONTAINMENT, and MULTIPLICITY).

Category	Image Schemas
BASIC	OBJECT; SUBSTANCE
SPACE	CENTER-PERIPHERY; CONTACT; FRONT-BACK; LEFT-RIGHT; LOCATION NEAR-FAR; PATH; SCALE; STRAIGHT; UP-DOWN; ROTATION
FORCE	ATTRACTION; BALANCE; BLOCKAGE; COMPULSION; COUNTERFORCE DIVERSION; ENABLEMENT; MOMENTUM; RESISTANCE; RESTRAINT REMOVAL SELF MOTION; LOCOMOTION
CONTAINMENT	CONTAINER; CONTENT; FULL-EMPTY; IN-OUT; SURFACE
MULTIPLICITY	COLLECTION; COUNT-MASS; LINKAGE; MATCHING; MERGING PART-WHOLE; SPLITTING
ATTRIBUTE	BIG-SMALL; BRIGHT-DARK; FAST-SLOW; HARD-SOFT; HEAVY-LIGHT STRONG-WEAK; WARM-COLD; GOOD TASTE – BAD TASTE; PAINFUL SMOOTH-ROUGH; YOUNG-OLD
PROCESS	CYCLE; ITERATION; SUPERIMPOSITION
PERCEPTION-ACTION	SEE; TASTE; GRASP; STAND

Table 2.1: ISCAT Image Schema Catalogue.

Image schemas contain components that can be related in various ways which results in a multiplicity of meanings being represented by the same image schema. Highlighting a relation between two components is referred to as *profiling*.¹ In profiling, one component is the object of primary focus and is referred to as the *trajector* (*TR*); the component of secondary focus is the *landmark* (*LM*). Each relation involving these trajector/landmark pairs yields a different meaning, as illustrated in Figure 2.2 (Langacker, 1986, p. 5) with respect to the the UP-DOWN image schema. In (a) *X* is the trajector and *Y* is the landmark in the relation of “above”: *X* (*TR*) is above *Y* (*LM*). When the labels of *TR* and *LM* are swapped in (b), the relation becomes that of “below”: *Y* (*TR*) is below *X* (*LM*). Thus, image schemas do not in and of themselves convey a single meaning, but a multiplicity of meanings based on profiling and *TR/LM* alignment.

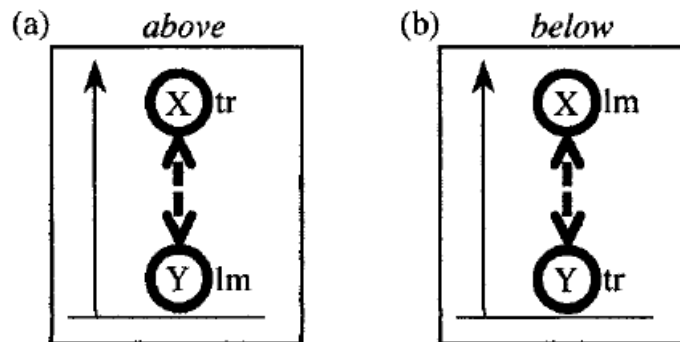


Figure 2.2: Up-down image schemas.

Image schemas and the physical meanings they contain are projected onto abstract concepts to form metaphors. Examples are given for the above relations when they are projected onto the abstract concept of status.

- *The general is above the soldier in rank.*
- *The soldier is below the general in rank.*

The *TR/LM* terminology also applies to the entities referenced in the corresponding abstract realm. Thus, *X* is the general; in the first statement he is the trajector and in the second he is the landmark.

Image schemas, then, are simple constructs that are primitives for describing the physical human experience in diverse ways, and can be applied to various metaphoric contexts. Through image schemas one can account for meanings of prepositions in both concrete and abstract domains.

¹Profiling is introduced by Langacker (1986, 2006) whose contributions are discussed further on p. 9

2.2 Conceptual Metaphor Theory (CMT)

CMT, the basis of the proposed methodology, counters the classical view of metaphor which considers it to be decorative language that is used in literary or creative contexts in contrast to the plain literal language of everyday life. It posits that metaphor is pervasive in everyday language, grounded in physical experience, and essential to the understanding of many abstract everyday concepts (Lakoff & Johnson, 1980a). Although CMT argues for and accounts for the pervasiveness and tacitness of metaphor, it does not ignore metaphor as defined in the classical understanding. It refers to such metaphor as *novel metaphor* and accounts for the classical understanding within CMT. Lakoff (1993) claims that novel metaphor is based on this system and is rarely produced through independent means.

Physical experiences result in metaphors through mappings. Mapping is not a process, but an existing mental connection between a physical concept and an abstract concept. CMT identifies three types of metaphors: orientational, ontological, and structural. These differ with respect to the nature of their mappings, namely the level of abstractness and elaborateness.

Oriental metaphors are rooted in basic human experience and physical orientation. For example, the normal human upward orientation yields mappings such as MORE IS UP/LESS IS DOWN (e.g., *turn the volume up/down*) and VIRTUE IS UP/LACK OF VIRTUE IS DOWN (i.e., *high/low values*). In these metaphors we see single mapping between upwardness and quantity or virtue.

Ontological metaphors provide a minimal structure to abstract notions without a rich set of mappings (Lakoff & Johnson, 1980a). They allow abstract concepts to be referenced as “discrete entities or substances of a uniform kind”. Example mappings are A STATE IS A CONTAINER (e.g., *in love*) and ACTIVITIES ARE A SUBSTANCE (e.g., *there was a lot of arguing throughout the relationship*). Here also, we see a single mapping with the difference being that ontological metaphor identifies an abstract concept as a concrete entity that is less primitive than orientation, motion, and the human physical experience.

Structural metaphors are the most elaborate type; they consist of mappings between physical and abstract concepts and employ the reasoning of physical concepts in the abstract. A rich set of mappings exists because domains, rather than individual concepts, are connected. Furthermore, multiple levels of abstraction compose systems. A highly referenced, obvious, and elaborate structural metaphor is LIFE IS JOURNEY; its mappings and how it is situated within a system are covered in an appendix on structural metaphors (Section B).

Oriental metaphors are the primary means of accounting for the contextual meaning of the prepositions that are analyzed. Ontological metaphors are not relevant to our inquiry because prepositions refer to relations and not to substance. Structural metaphors are relevant, but play a secondary role in our analysis in that structural metaphors that contain the identified orientational

metaphor are documented. Thus, CMT is an elaborate theory from which we have chosen the relevant resources that help us address our research questions about prepositions.

2.3 Cognitive Linguistics

CMT is one of various approaches that form cognitive linguistics, what Geeraerts (2006) calls a “theoretical conglomerate” and “flexible framework” of approaches that overlap in that they (1) account for language via generalized cognitive processes and mechanisms, (2) treat it as primarily semantic, (3) and consider it shaped by human experience and perspective. Cognitive linguistics offers symbol-based models that allow metaphor to be explained. Although our work is centered on CMT, it is important to note two works which show the symbolic nature of cognitive linguistics and its extension of physical human experience to the abstract. These provide adequate insight into the environment in which CMT resides. In addition, each contains notions that are relevant to this inquiry.

In his seminal work on Cognitive Grammar, Langacker (2006, 1986) puts forth his theory of grammar as a “continuum of symbolic units”. Lexicon, morphology, and syntax, which are aspects of language that are traditionally treated as separate systems, form this continuum. The symbolic units within this continuum are described as bipolar, consisting of a semantic pole and a phonological pole.²

Within his theory, Langacker introduces two notions that are relevant to our work. The first is *trajector/landmark* (*TR/LM*).³ They are conceptual notions and can be referenced in the absence of an explicit mention of either. For example, in the sentence *traveling is enjoyable*, there is an implied *traveler* and *destination*; these are neither a subject nor an object in the sentence, but the sentence invokes these two concepts and they are identified as the *TR* and *LM*, respectively. In the context of prepositional phrases, the *LM* is the object of the preposition (*TR preposition LM*); for example, in sentence “the kids are in the hall”, *hall* is the *LM* and kids is the *TR*.

Another notion Langacker introduces is that of profiling. Every concept has a base and a certain set of distinctive or salient features that he calls the profile. Figure 2.3 (p. 10) contains an example of how the verb forms *go* and *gone* share the same base, but have different profiles. When one conjures up a concept in their mind, which Langacker refers to as imaging, s/he may do so with varying levels of specificity (e.g., *go* vs. *gone*).⁴

Profiling is also relevant to image schemas in that various components of image

²This summary gives the essence of a prominent cognitive linguistic theory of grammar; note that this is not the only cognitive linguistic theory of grammar, but what is given here is adequately representative.

³These are mentioned in the previous section on image schemas, but are introduced more

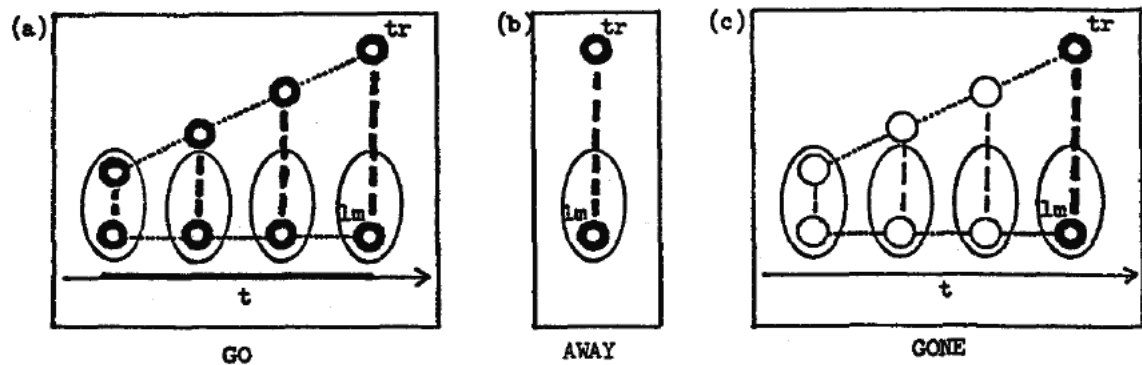


Figure 2.3: Construal of *go* vs. *gone*.

ReferenceInfo	Verse	
Romans 1:20	τα γαρ αορατα αυτου απο κτισεως κοσμου τοις ποιημασιν νοουμενα καθοραται η τε αιδιος αυτου δυναμις και θειοτης [εις το ειναι αυτους αναπολογητους]	
εις (<i>eis</i>)		
result		
Context: 89.48 'so that'		
Basic: 84.16 'to'	<i>ta gar aorata autou apo ktiseōs kosmou tois poiēmasin</i> <i>nooumena kathoratai ē te aidios autou dynamis kai</i> <i>theiotēs [eis to einai autous anapologētous]</i>	
SPACE/PATH		
		For from the creation of the world, his invisible attributes, both his eternal power and deity, are discerned clearly, being understood in the things created, [so that they are without excuse].
Romans 14:9	[εις τουτο] γαρ χριστος απεθανεν και εζησεν ινα και νε- κρων και ζωντων κυριευση	
εις (<i>eis</i>)		
purpose		
Context: 89.57 'in order to'		
Basic: 84.16 'to'	[<i>eis touto</i>] <i>gar christos apethanen kai ezēsen ina kai</i> <i>nekrōn kai zōntōn kyrieusē</i>	
SPACE/PATH		
		For Christ died and became alive again [for this reason], in order that he might be Lord of both the dead and the living.

Table 2.2: Example verses of εις (*eis*) with meanings of *result* and *purpose*.

schemas are profiled when they are mapped to certain contextual meanings. For example, the Greek preposition εις (translated *to* or *into* in English) has various

fully within the context of covering cognitive linguistics.

⁴In this inquiry, the *TR* and *LM* in the image schemas and prepositional phrases are discussed at a low-level of specificity and perhaps no-level of specificity since the scope of analysis covers all Greek prepositions found in the Pauline Corpus. Future studies can address the *TR* and *LM* of various prepositions as well as basic/contextual meaning pairs.

meaning, two of which are purpose (e.g., *in order to*) and result (e.g., *so that*). Louw and Nida (1996) define them and give them glosses as follows:

- purpose: “marker of intent, often with the implication of expected result—‘for the purpose of, in order to.’”
- result: “markers of result, with the probable implication of a preceding process—‘with the result that, so that as a result, to cause.’”

In the absence of explicit indication or sufficient context, telling these two meanings apart is difficult because *purpose* has result in mind and *result* is sometimes preceded by purpose.⁵ Table 2.2 contains one example of each.

Both of these meanings are based on the PATH image schema, but each profiles different components of this image schema in a different manner. This is illustrated below in Figure 2.4 in direct correspondence with the key terms from the definitions above. The components of the PATH image schema are *source*, *path*, and *goal* (refer to Figure 2.1 on p. 5). *Purpose* profiles the *source* explicitly (bold line) which corresponds to “intent”, and it profiles *goal* implicitly (bold dashed line) which corresponds to the implied “expected result”. Conversely, *result* profiles the *goal* explicitly which corresponds to “result”, and it profiles *source* implicitly which corresponds to the implied “preceding process”.

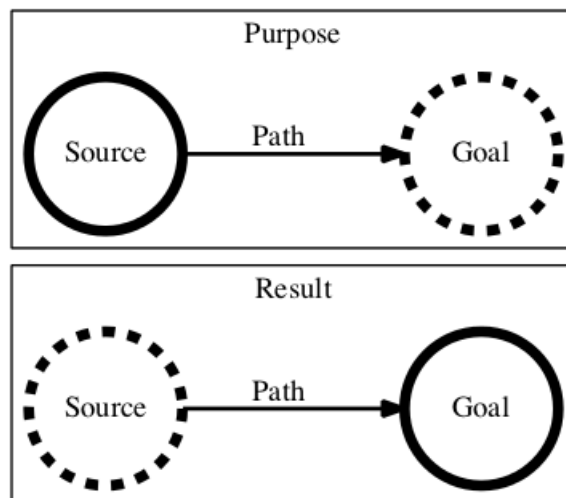


Figure 2.4: Profiling of *purpose* and *result* in the PATH image schema.

Talmy (1988) presents force dynamics as a semantic category and as one of the components of his own cognitive linguistic theory of grammar which is similar

⁵When Porter (1999, p. 153) gives examples of these two meanings for this preposition, he betrays this difficulty by describing them as follows: “purpose [as the meaning for εἰς in Romans 5:18 is] ... an interpretation requiring theological analysis” and “[εἰς is] probably seen as result [in Romans 10:1]”.

to Langacker’s in many aspects. Force dynamics is a recurring pattern consisting of an *agonist* and *antagonist* in various configurations that are determined by the following: (1) The *agonist*’s tendency towards either motion or rest, (2) the balance of strength between the *agonist* and *antagonist*, and (3) the result, which is either rest or action by the *agonist*. This model first accounts for physical forces and actions, but it is generalized to account for the notion of causation, and is further extended to the realm of psychological interactions of various types. Force dynamics is also modeled more simply in a subset of the image schemas used in this study to account for cause and related notions such as agent and instrument. Talmy’s work shows that image schemas can be further elaborated into eloquent models of physical analysis that can be extended into the abstract.

2.4 Metaphor Identification Procedure (MIP)

As a follow up to the theoretical treatment of metaphor as started by Lakoff et al., Pragglejaz Group (2007) identify the need to address issues of application in the study of metaphor, namely how a metaphor is identified and how the reliability of such conclusions is addressed. They first propose a systematic procedure, the Metaphor Identification Procedure (MIP). It assumes the object of observation to be a text-discourse and first requires the reader to get a general understanding of it. Once the lexical units are determined (single words or multi-word expressions), the following process is carried out for each:

- Establish its meaning in context.
- Determine if it has a more basic meaning on the basis of being
 - more concrete (more readily perceivable in the mind or experienced through the senses)
 - related to bodily actions
 - more precise or less vague
 - historically older
- If the lexical unit has a more basic and currently relevant meaning in other contexts, decide whether the meaning of the lexical unit “contrasts with the basic meaning but can be understood in comparison with it.”
- If the answer is “yes”, the lexical unit is marked as metaphorical.

Steen et. al. (2010b) describe this last step as a two-step test for distinctness and similarity. First, sufficient distinctness is determined if the basic meaning is found in the dictionary and the contextual meaning differs from it regardless of whether it is found in the dictionary. If distinctness is determined, then

metaphoricity is decided by a test for similarity between the basic and contextual meanings. Similarity is described as resemblances between the concepts designated by the meanings; the resemblances consist of two types: external (i.e., attributes) and functional (i.e., relations). For example, for the preposition *above* we have two distinct meanings: “in or to a higher place” and “in or to a higher rank or number”. They are distinct in that one refers to physical position and the other refers to rank. The similarity lies in that they both refer to height, which itself metaphorically implies a greater quantity⁶. This allows the two meanings to be contrasted and for the contextual meaning to be understood.

Pragglejaz also propose that the application of the procedure be documented. The elements documented include various details about (1) the text, (2) readership of the analysis, (3) approach to lexical units, grammatical categories, and the text as a whole, and (4) resources used such as dictionaries. In addition, they propose the documentation of details of the analysis such as the number and identity of the analysts, the training they received, and subsequent discussions among analysts to resolve differences of interpretation. The documentation also includes the reliability measures and statistical analyses of agreement among analysts on the metaphoricity of the lexical units.

Pragglejaz follow the discussion of their procedure with a discussion of issues that arise in its application. They arise from decisions that are made regarding “the structure and meaning of language.” The most relevant ones relate to (1) choosing the lexical units, (2) deciding on the basic meaning of the word, and (3) considering the type of discourse being observed.

When delimiting lexical units, one has to decide whether to analyze certain multi-word units as a whole or as individual words. The cases considered are polywords, phrasal verbs, classical idioms, and fixed collocations. The key criterion used by the authors in this decision is whether a semantic change (change of meaning) results from analyzing words individually. As a result, the only multi-word units treated as a single lexical unit are polywords (e.g., *of course*, *all right*).

Pragglejaz address the metaphoricity of all parts of speech including prepositions. In their discussion of basic meaning, the authors consider the analysis of lexical words vs. that of grammatical words. They observe that determining the basic meaning of lexical words is easier. While spatial prepositions are considered straight forward cases (e.g., *in*, *on*, *into*), more highly abstract prepositions are considered problematic (e.g., *with*, *for*, *of*). Furthermore, they state that even an attempt to delineate between a basic and contextual meaning is inappropriate for these abstract prepositions. This last point runs contrary to the “localistic hypothesis” commitment of this study as well as other studies in prepositions

⁶The metaphor is based on the SCALE image schema and the LINEAR SCALES ARE PATHS metaphor, but MIP does not require, nor does it address tracing back a similarity that is metaphoric.

(refer to the next section).

Finally, certain discourse types such as literary or religious texts require one to be sensitive to the meanings of the word at the time of writing as well as to the specialized context.

The value of MIP is that it goes beyond the intuition of a single observer and defines a procedure that is flexible and documented. Although the documentation process is costly in terms of effort and time, it is nevertheless valuable for the analyst's sake as well as those reading the analysis.

Steen et. al. (2010b) clarify that MIP identifies metaphor at the linguistic level rather than the conceptual. Thus, it merely identifies that the usage of a word is metaphoric based on a comparison of two of its senses, but it does not aim to identify “underlying conceptual mappings”, although such analysis can take place subsequent to metaphor identification.

2.5 Cognitive Approaches to Greek and English Prepositions

Although prepositional metaphors in general are characterized as subtle and unnoticed (Krennmayr, 2016; Goatly, 1997, 2011), spatial prepositions are known to be used metaphorically. Tracing their meaning lends itself to image schema based analysis and other similar cognitive approaches. Various works have applied such methods to aid in understanding Greek and English prepositions.

According to Boers (1996), Lindner's work and others which precede his, are limited to the various spatial senses of the meaning of prepositions, whereas his work accounts for the figurative meanings of the prepositions. He differentiates the spatial senses of each preposition in a manner that enables one to account for the various figurative extensions, which includes differentiating between the dynamic and static sense of the preposition (motion vs. location). He covers the UP-DOWN and FRONT-BACK dimensions of spatial prepositions in the English language. He analyzes various senses of the meaning of the prepositions and models them accordingly as image schemas of varying configurations.

He accounts for the figurative extensions of the spatial meaning with conceptual metaphors that contain the schemas of the physical configuration. Some metaphors contain the mapping between the spatial and conceptual domain at the conceptual level; other metaphors cited contain the mapping at the linguistic level. For example, figurative meanings of *under* are accounted for with the metaphor HIGH STATUS IS UP/LOW STATUS IS DOWN, which contains the mapping at the conceptual level; they are also accounted for with the metaphor COGNITION IS PERCEPTION, which shows the mapping in linguistic expressions such as “the topic under review”.

The UP-DOWN dimension, the more fruitful part of the study, finds the most

frequent metaphors to account for figurative senses to be MORE IS UP/LESS IS DOWN and HIGH STATUS IS UP/LOW STATUS IS DOWN. In the FRONT-BACK dimension, whose prepositions are fewer and half as frequent, all prepositions have figurative meanings that are explicitly or implicitly temporal. Furthermore, temporal senses and space/time metaphors are found in both the UP-DOWN and FRONT-BACK dimensions.

With respect to Greek prepositions, two works that are often mentioned in tandem are those of Luraghi (2003) and Bortone (2010). Both works approach the meaning of Greek prepositions from the cognitive perspective; and both discuss cases (i.e., dative, genitive, accusative) since they are related historically (i.e., cases were replaced by prepositions) and with respect to syntax/semantics (i.e., meanings of prepositions are often determined by the case that follows them). Luraghi focuses on Ancient Greek which preceded Koine Greek of the New Testament while Bortone traces developments in the meanings of prepositions across Ancient Greek, Hellenistic Greek (Biblical Greek), Medieval Greek, and Modern Greek. Luraghi's treatment of prepositions in Ancient Greek is useful since it sheds light on the period preceding Biblical Greek and also since it makes mention of later developments, including those of Biblical Greek. Bortone is useful also due to coverage of Ancient Greek, but more so due to his coverage of Koine Greek. Luraghi's cognitive approach is based on semantic roles, which overlap with image schemas. Bortone's narrative is driven by a diachronic⁷ approach to exploring the "localistic hypothesis", a notion to which various scholars have held to varying degrees of assertion regarding the spatial basis of figurative meanings of preposition. While approaching the "localistic hypothesis" diachronically, Bortone does admit that it is supported synchronically in other studies. This overlap between the synchronic and diachronic basis for metaphor is also acknowledged by Steen et. al. (2010b), who note that relevant basic meanings subsume historically older meanings.

Dirven (1993) provides a survey of non-physical extensions of English prepositions, comparing physical space to mental spaces. He analyzes the metaphoric use of English prepositions using the following areas: time, state, area, circumstances, cause/reason/agent, and means/manner/instrument; furthermore, he takes into consideration static (position) and dynamic (motion) contexts. He employs radial networks to account for the relations or "chains of meaning" between the extended meanings of each preposition. His analysis of both individual prepositions and abstract concepts concludes that the division of physical space affects the division of mental space. Furthermore, he concludes that the difference in the conceptualization of physical spaces between languages leads to differences in the conceptualization of mental space. He also observes that the range of meaning for the physical senses of a preposition is reflected in the range of meaning in the non-physical senses.

⁷Tracing the development of prepositions through time.

In the case of Biblical texts, translation is a crucial meeting point for the understanding of prepositional metaphors in Greek and English. According to Schäffner (2016), metaphors that cannot be translated directly tend to be either replaced by an equivalent metaphor in the target language or to have their intended sense translated into the target language. She also cites Newmark’s (1981) additional option of not translating a metaphor if doing so results in redundancy.

Apart from metaphor translation procedures, there remains the issue of the integration of the cognitive understanding metaphor into translation practices. In other words, are they informed by a linguistic or conceptual understanding of metaphor? Schäffner reports a wider use of conceptual metaphor theory, yet also a lingering linguistic approach as well as a hybrid between the two. Furthermore, she reports that studies about the implications of conceptual metaphor theory on translation are “relatively few” (citing Prandi 2010) in comparison to many studies on translations of metaphors, often containing evaluations of the choices made by translators. She ascribes this to the reality that translators are often focusing on the text rather than cognitive notions.

In her exploration of metaphor in the First Epistle of Peter (2006), Howe states “cognitive metaphor analysis will not clear up all of the ambiguities [in prepositions]; rather, it helps explain the nature of the ambiguity and situates certain earlier analyses on firmer ground.” Her analysis of the elusive phrase $\epsilon\nu$ $\chi\rho\iota\sigma\tau\omega$ (*en christō*, ‘in Christ’) as found in 1 Peter 3:16 identifies the obvious CONTAINER image schema as the cognitive foundation of the analysis, but also relies on the use of the preposition elsewhere in the epistle, especially prior uses which she considers to prepare readers and point forward to the meaning in 1 Peter 3:16. She also points out Lakoff and Johnson’s distinction between *emergent concept* and *metaphorical concept* where $\epsilon\nu$ is not considered to have multiple meanings but is a single emergent concept which partially defines various metaphorical concepts; in this case the metaphorical concepts is Christ-likeness. She arrives at this conclusion via Fauconnier and Turner’s notion of character projection into conceptual spaces, considering the character of Christ being projected onto the container landmark. Such analysis establishes a cognitive foundation that narrows the field of possibilities that not only have a basis in the spatial meaning of the preposition, but also in a theory that accounts for the leap from spatial to conceptual meaning.

2.6 Corpus Linguistics and Metaphor

While MIP strives for sounder conclusions about metaphor by addressing the analytical process of a single unit of analysis, the corpus linguistic approach does so by addressing the data (a source of multiple of units of analysis) and its scope. CMT’s origin and articulation is based on anecdotal evidence and introspection; although these serve their purpose, corpus linguistics allows sounder conclusions

to be formed through the observation of large sets of data that exist for various genres of discourse (e.g., conversation, academic, religious, scientific, etc.) that can be made widely available for use in research (i.e., standard corpora such as the Brown Corpus). According to Tissari (2016) what is at stake is speed, replicability, and statistics; she also cites various research to stress the quality and types of conclusions reached by corpus-based research in metaphor. Among the research she cites is Deignan's (2008); it echoes Pragglejaz's concerns regarding intuition and also sheds light on the nature of metaphor as a phenomenon. Her findings at times confirm results found apart from a corpus linguistic approach; at other times her findings are to the contrary. This work is significant because it makes a case for the positive contribution of corpus linguistics to the study of metaphor.

According to Evison's (2010) overview, although corpora can contain millions of words, smaller sub-corpora containing 34,000 and 50,000 words have been sufficient for research on specialized registers. Tessari cites Koller's (2006) observation that large corpora can in actuality hinder detailed metaphor analysis. In light of this, we see that our corpora (34,956 tokens in Greek and 44,301 tokens in English) offer enough samples for our genre-specific analysis and facilitate detailed analysis when necessary.

A corpus can consist solely of text (or linguistic data), but an annotated corpus, consisting of data about the data (metadata) is highly useful; such a corpus is also referred to as a "tagged" corpus. Such tagging can take place at various levels. In his work in applying corpus analysis to the study of the Greek New Testament, O'Donnell (2005) proposes multiple levels of annotation: orthographic, morphological, grammatical, syntactical, semantic, and discourse. In our investigation, tagging at the grammatical and semantic levels are most relevant. Grammatical tagging consisting of part-of-speech information is used to locate the targets of analysis, prepositions. Semantic annotation specifies the semantic field of a given word; in Greek New Testament studies, the standard for this is the Louw-Nida numbering scheme which contains a number indicating the semantic field of a word and a specific meaning⁸. Our corpus is tagged with Louw-Nida numbers that identify the contextual meaning. In the case of our corpus, each word has a single number assigned, but O'Donnell's proposal allows for multiple semantic tags to be assigned in case of ambiguity.

When a corpus is searched, the target linguistic expressions found are displayed within their context; such a listing is called a concordance. Based on the concordance, one can generate frequencies for the terms and calculate for each term what percentage of the corpus the term occupies; the resulting list of frequencies can be sorted by order of frequency. Frequencies can be subject to complex statistical analysis, but our work focuses simply on the patterns observed in a list of items sorted by frequency/percentage.

⁸Louw-Nida numbering is described in detail in 3.3 (21)

Corpus-based metaphor studies search for patterns of metaphor in general-purpose corpora, or carry out comparisons between time periods and genres, or compare metaphor across languages. Our study falls under the last category, but in particular it is not just a comparison of metaphor as it occurs in two languages, but the translation the metaphoric text of one language into another.

Stefanowitsch (Stefanowitsch, 2006) discusses the problem of searching a corpus for metaphor. Some of the means he discusses relate directly to the text: (1) manual search, (2) searching for source/target domain terms (either or both), and (3) searching for works that indicate that a metaphor will follow (e.g., works like “actually” or quotation marks). Others involve annotation of the text for semantic domains or conceptual mappings. In our case, the corpus is tagged for semantic domains which allows us to differentiate between time metaphors and abstract metaphors in prepositions; the analysis then traces back the metaphor to its basic meaning, which results in adding conceptual mappings, but only for prepositions.

2.7 Conclusion

As observed in the above works, although CMT is a refined cognitive linguistic theory, it is necessary to supplement it with rigorous methodologies (MIP and corpus linguistics). At the same time, one observes a symbiotic relation between MIP and CMT: although MIP introduces rigor to metaphor identification for CMT, its analysis is extended with CMT methodology. In addition, works on Greek and English prepositions that are rooted in the “localistic hypothesis” show that image schemas and overlapping constructs are adequate models for the analysis of figurative meanings. The combination of these works serves as a robust basis of a methodology for exploring the metaphoric use of prepositions in the Pauline corpus.

Chapter 3

Methodology

3.1 Introduction

This inquiry is carried out in a three-part sequence of analyses, with each part building on the results of the previous. The first part is the MIP procedure which identifies the linguistic basis of a metaphor. The second identifies the cognitive basis for the metaphor. The third part evaluates how prepositions are translated into English and how (or if) their metaphors are preserved (or reflected).

In this chapter we describe (1) the parallel corpus consisting of Greek and English versions of the letters of Paul the Apostle, (2) the lexicon used for the analysis of the Greek prepositions, (3) the analytical procedures employed, and (4) the data sets that are compiled for the analysis as well as those derived from it. The corpus and lexicon are addressed first because they (1) serve as main inputs to MIP and (2) require separate treatment due to the details in their descriptions that serve as pre-requisites to the understanding of MIP and the cognitive analysis.¹

3.2 Corpora: Pauline Corpus in the *SBLGNT* and *LEB*

This section describes the corpora being used, including the New Testament Greek text and the English translation. The Pauline Corpus consists of the 13 letters from the canon of the New Testament that are authored by Paul the Apostle. Since the original language of the New Testament is Koine Greek (hereafter referred to simply as *Greek*), the inquiry is based on a Greek edition of the New Testament, the *Society of Biblical Literature Greek New Testament*

¹Other inputs to the cognitive analysis, the ISCAT database of image schemas and Master Metaphor List (Second Draft Copy), do not require extensive treatment and are briefly mentioned within the description of the cognitive analysis steps.

(*SBLGNT*) (Holmes, 2010). Additionally, a translation of the *SBLGNT* is also used, the Lexham English Bible (*LEB*) (I. Harris W. H. et al., 2012); it is used as the basis of the discussion on the translation of Greek prepositions into the English language. The *LEB* is a literal translation that uses the most recent lexical reference works. Although there are more standard Greek texts such as the United Bible Societies (*UBS5*) (B. Aland, Aland, Karavidopoulos, Martini, & Metzger, 2014) and Nestle-Aland (NA29) (2012) texts, the translations that use these texts also incorporate variants from other sources. In addition, the publishers of the *SBLGNT* and *LEB* make their works freely available in text format for scholarly use. Thus, it is possible to produce an open annotated corpus of metaphors based on them without licensing restrictions. It is also possible to separately document the instances where the Greek text varies from the aforementioned standard texts as well as other well known texts (e.g., Byzantine Text, Majority Text, and the Scrivener Textus Receptus); however, the current work does not concern itself with this task, but leaves it as a future possibility. In light of these issues, this readily available pair of well respected works is useful and suitable for this inquiry.

Letter	Number of Chapters	<i>SBLGNT</i> # of Words	<i>LEB</i> # of Words
Romans	16	7,584	9,389
1 Corinthians	16	7,374	9,689
2 Corinthians	13	4,822	6,375
Galatians	6	2,431	3,185
Ephesians	6	2,609	3,035
Philippians	4	1,758	2,237
Colossians	4	1,714	2,008
1 Thessalonians	5	1,596	1,910
2 Thessalonians	3	898	1,100
1 Timothy	6	1,739	2,310
2 Timothy	4	1,340	1,657
Titus	3	722	931
Philemon	1	369	475
Total	87	34,956	44,301

Table 3.1: Number of tokens in the Pauline Corpus of *SBLGNT* and *LEB*, per letter and in total.

The two works each form a small corpus; the Pauline Corpus in the *SBLGNT* consists of 34,956 tokens and it consists of 44,301 tokens in the *LEB*. Table 3.1 lists the letters in the Pauline corpus along with the numbers of chapters as well as the token count in the *SBLGNT* and *LEB*, per letter and in total.

The Bible is divided into chapters and verses, both of which are numbered; verses are coherent units of text but they do not necessarily correspond to sentences. The corpora contain each verse on a separate line, along with the name of the letter, the chapter number, and verse number at the beginning of each line.

3.3 Lexicon

The lexicon that is being used as the basis for the inquiry is the *Greek-English Lexicon of the New Testament: Based on Semantic Domains* (Louw & Nida, 1996) (hereafter referred to as Louw-Nida).² The lexicon was developed in order to address the lack of systematicity and clarity in classifying, organizing, and conveying meaning. It is mostly used by Biblical scholars and students of the New Testament. It accounts for all words in the Greek New Testament *UBS4* (K. Aland et al., 1993; 2006) text, including alternate readings.³ Since we are dealing with prepositions, we can still use Louw-Nida even though it is not based on the *SBLGNT*. The fact that the *SBLGNT* corpus is tagged with LN number is evidence that this is not problematic; furthermore, a search of the variants where *SBLGNT* differs *UBS4* shows that there is only a single instance where a preposition in *SBLGNT* has a different preposition in its place in *UBS4*.⁴

The lexicon is arranged according to semantic domains, which are arranged in a three-level hierarchy consisting of semantic domains (first level) and two levels of subdomains (second and third levels). Each entry in the lexicon is assigned a two-part Louw-Nida number, consisting of two integers separated by a dot ‘.’ (e.g, 84.33). The first number represents the semantic domain (first level of the hierarchy) and the second represents the third level of the hierarchy. Although the second level of the hierarchy is not explicitly stated in the number, it can be identified because it is identified with range of numbers. For example, in the aforementioned Louw-Nida number, 84.33, one can identify the second level of the hierarchy as *C Extension Along a Path* because all Louw-Nida number from 84.29 to 84.33 belong to this subdomain. In our analysis we are mainly concerned with the second level of the hierarchy.

Table 3.2 shows the hierarchical layout of domain 84 (Spacial Extensions). Table 3.3 shows the subdomains of domain 83 (*Spacial Positions*) and level 2

²This is a common abbreviation of the name, consisting of the last names of its creators, Johannes P. Louw and Eugene A. Nida

³The lexicon also includes idioms, but idioms are outside of the scope of this inquiry.

⁴This occurs in 1 Thessalonians 5:10 where NA28 has ὑπέρ (*hyper*) vs. περί (*peri*) in *SBLGNT*.

domain *H* (*On, Upon, On the Surface Of*).

A single Louw-Nida number can contain more than one word as shown in Table 3.3 (83.47 contains both εἰς and ἐν). Conversely, one word can belong to multiple Louw-Nida numbers; thus, words are assigned a superscript letter for each instance that belongs to a different Louw-Nida number. Furthermore, the second volume of the lexicon is indexed by words rather than Louw-Nida numbers; for each word it lists the superscript letter, a gloss, semantic domain (in parentheses), and Louw-Nida number. Table 3.4 contains a sample partial listing for ἐν (*in*, ‘en’); idioms are excluded.

Domain	Subdomain	Number Range
84 Spacial Extensions	A Extension From a Source	84.1–84.15
	B Extension To a Goal	84.16–84.28
	C Extension Along a Path	84.29–84.33

Table 3.2: Hierarchy of Domain 84 (Spacial Extensions)

Domains/ Subdomain	Number	Greek Preposition	Superscript, Translation, and Abbreviated Domain
83 Spacial Positions/ H On, Upon, On the Surface Of	83.46	ἐπί (<i>epi</i>)	a upon (location)
	83.47	εἰς (<i>eis</i>)	c on (location)
	83.47	ἐν (<i>en</i>)	c on (location)

Table 3.3: Subdomains of 84 Spacial Extensions/H On, Upon, On the Surface Of

$\acute{\epsilon}\nu$ (<i>en</i>)
a in (location): 83.13
b among (location): 83.9
c on (location): 83.47
d at (location): 83.23
e in (state): 13.8
f into (extension): 84.22
g in union with (association): 89.119
h with (attendant circumstances): 89.80
i with (instrument): 90.10
j with (manner): 89.84
k with regard to (specification): 89.5
l of (substance): 89.141
m to (experiencer): 90.56
n by (agent): 90.6
o by (guarantor): 90.30
p by (means): 89.76
q because (reason): 89.26
r so that (result): 89.48
s when (time): 67.33
t during (time): 67.136
u in (content): 90.23

Table 3.4: Louw-Nida listing of meanings of $\acute{\epsilon}\nu$

Each Louw-Nida definition consists of the Louw-Nida number, the words that fall under the domain hierarchy indicated by the Louw-Nida number, a general definition, glosses, and one or more examples for each word listed under the Louw-Nida number. Table 3.5 shows an example for Louw-Nida number 89.76 which covers a common meaning for the prepositions εἰς (*eis*, ‘to, into’), ἐν (*en*, ‘in’), and διὰ (*dia*, ‘through’).

89.76 εἰς^h (*eis*); ἐν^p; διὰ^c: markers of the means by which one event makes another event possible—‘by means of, through, by.’

εἰς^h: οἵτινες ἐλάβετε τὸν νόμον εἰς διαταγὰς ἀγγέλων ‘you who received the Law through arrangements made by angels’ or ‘you who received the Law handed down by angels’ Ac 7:53.

ἐν^p: ὡς ἐγνώσθη αὐτοῖς ἐν τῇ κλάσει τοῦ ἄρτου ‘how he became known to them by the breaking of bread’ Lk 24:35.

διὰ^c: ἣν περιποιήσατο διὰ τοῦ αἵματος τοῦ ἰδίου ‘which he made his own through his own blood’ Ac 20:28. The term ‘blood’ in Ac 20:28 is a figurative expression designating the event of sacrificial death (see 23.107). καὶ ἀποκατάλλάξῃ τοὺς ἀμφοτέρους ἐν ἐνὶ σώματι τῷ θεῷ διὰ τοῦ σταυροῦ ‘and he reconciled both in one body to God through the cross’ Eph 2:16. In Eph 2:16 ‘cross’ refers to the sacrificial death of Christ. ἡγιασμένοι ἐσμὲν διὰ τῆς προσφορᾶς τοῦ σώματος Ἰησοῦ Χριστοῦ ἐφάπαξ ‘we have been made holy through the offering of the body of Jesus Christ once for all’ He 10:10.

Table 3.5: Louw-Nida definition of 89.76 εἰς^h; ἐν^p; διὰ

The various Louw-Nida data that is described above is integral to the methodology, analysis, and data sets because the words in the Greek corpus are tagged with Louw-Nida numbers. In this inquiry, we refer to each combination of preposition and Louw-Nida number as a *prepositional sense*. Furthermore, the semantic domain hierarchy allows clusters of similar meanings (Table 3.3) to be analyzed together. This means that the analysis will reference the general meaning conveyed by the domain/subdomain combination rather than the specific meanings indicated by the numbers.

3.4 Metaphor Identification Procedure and Cognitive Analysis

In this section, we cover both MIP and the cognitive analysis together since we consider the cognitive analysis to be an augmentation of the MIP procedure. It is important to note that the subject of our analysis is a list of prepositional senses that have been extracted from a tagged text of the Pauline corpus. Thus, certain steps in the MIP procedure have already been completed due to the nature of the data set; the most important of these is the contextual meaning of the prepositions. What remains to be done in the MIP analysis is finding the basic meaning for each item of analysis and determining its metaphoricity. This is followed by cognitive linguistic analysis to account for the metaphor that is identified. We conclude this section with sample analyses of the procedures described.

As outlined in the literature review, in MIP, one must (1) read the text and (2) delimit its lexical units; then, for each lexical unit s/he must (3) determine its meaning in context, (4) search for meanings that are considered more basic (i.e., more concrete, related to bodily actions, more precise or less vague, or historically older), and (5) mark the lexical unit as a metaphor if the meaning in context can be understood when compared to a more basic meaning.

The data set contains the analysis of the first three steps by virtue of having part-of-speech tagging (step 1), delimited prepositional phrases (step 2), and tagging that indicates the contextual meaning of each token (step 3). Furthermore, since the contextual meaning is already determined for each preposition, the MIP procedure is carried out on a list of the prepositional senses.

We add the following steps to the MIP procedure for the purpose of cognitive analysis:

6. if the preposition is used metaphorically, proceed to the following step, otherwise, mark the usage of the preposition as literal
7. account for the mapping
 - (a) if the mapping is accounted for with one or more image schemas, choose the image schema that best accounts for it
 - (b) identify a conceptual metaphor that explains the mapping fully, partially, or indirectly.

Below is a description of these steps, including brief justifications of particular choices made in steps 1-4. In addition, the criteria for carrying out the additional steps (6-8) is also outlined.

Step (1) - Reading the text

This step is carried out for the purpose of determining the contextual meaning of the preposition. Since our Greek and English corpora are tagged with indicators of the contextual meaning, this step is foregone. The contextual meaning is encoded in numbers from the Louw-Nida lexicon which is described in section 3.3); the tagged corpora are described in section 3.6.1. However, we validate the tagging by comparing to the analysis found in the *Exegetical Summaries Series*, which covers a subset of the corpus. The corresponding data set is described in section 3.6.6 and the results of the validation are found in section 4.1.6 (p. 52) in the results and discussion section.

Step (2) - Delimiting its lexical units

Although the first step is foregone due to the use of the tagged corpus, it is still necessary to determine which instances of prepositions are analyzed. While most prepositional instances are tagged individually, there is a portion of them that are tagged as part of an idiomatic expression or as part of a paired set of prepositions (i.e., from/to). In this inquiry, we only analyze standalone prepositions. Prepositions tagged as part of an idiomatic expression or as pairs are not part of the inquiry since their meaning as an individual preposition is not tagged in such cases; rather the existing tags apply to the meaning of the idiom or pair as a whole.

Although it is possible to analyze these prepositions individually, we do not exercise this option for several reasons. We consider such analysis to be outside of the scope of the exercise because if such analysis took place we would face two problems: (1) the analysis would not be carried out in the same manner as the analysis that was carried out during the tagging of the individual prepositions, or (2) it would require a substantial exercise to validate the approach and results. Thus, we prefer to take the existing data that suits our purposes especially since it consists of 95.38% of all prepositions in the corpus.⁵

Steps (3,4,5) - Determining the meaning in context and the basic meaning to determine metaphoricity

With the contextual meaning already contained in the corpora, we are left with the task of determining the basic meaning and the metaphoricity of the contextual meaning. We refer to three parameters in order to frame our approach to finding basic meaning within MIP terminology and discussion: type of text, approach to finding basic meaning, and lexicons. First, the type of text under analysis is religious and written in the literary genre of the epistle. According

⁵Section ?? contains a detailed breakdown of the distributions of the various types of prepositions, both analyzed and not analyzed.

to the modern and foundational work on MIP (Group, 2007), older meanings “may be crucial” for metaphor identification; in our case, this is definitely crucial especially with a document written in an ancient language (Greek) whose definitions are in a different language (English). Second, we have two linguistic time periods to consider: New Testament and Classical. We address this issue based on a theoretical and practical discussion of MIP. A theoretical discussion on finding basic meaning (Steen et al., 2010a) highlights the distinction between synchronic (i.e., finding a contemporary basic meaning) and diachronic (i.e., finding a historically older meaning). A discussion of MIP in practice (Steen et al., 2010b) notes that the two meanings overlap since a historically older basic meaning can remain in contemporary usage. The synchronic approach is employed exclusively for research on contemporary language and behavioral research; the diachronic approach considered is appropriate for literary and religious texts. Our approach is to employ the synchronic approach and fall back on the diachronic approach when a basic meaning can’t be found. We use the term “contemporary” to mean “contemporary to the period of the writing of the New Testament” and the term “obsolete” for basic meanings only found in Classical Greek. When the metaphoric meaning survives and the basic meaning drops out of usage, as is assumed due to its absence from the Louw-Nida lexicon, this consists of a “dead metaphor” (i.e., the metaphoric meaning lives, but the original basic meaning is dead). Third, we allow the lexicons we are employing to delimit what is contemporary and what is obsolete. The Louw-Nida lexicon is used to determine the contemporary basic meaning in New Testament Greek; the Lidell-Scott lexicon (LSJ) is referenced to find a obsolete basic meanings in Classical Greek. Based on the above, we search the lexicons. First we look for the basic meaning of best contrast with the contextual meaning in the Louw-Nida lexicon, and if none are found, we search in the LSJ lexicon.

Steps (6,7,8) - Accounting for the metaphor through image schemas and structural metaphors

This work operates from a priority for the “localistic hypothesis” and uses image schemas primarily to account for metaphoric meaning due to their spatial nature and visual representation. Since prepositions are grammatical words, not having rich lexical meanings and not representing complex concepts, image schemas are expected to account for their meaning sufficiently.⁶

However, the structural metaphors that are related at the conceptual level (Boers, 1996) are also documented where applicable in order to situate certain metaphorical usages within a larger metaphorical system. Two well-known available catalogues are used as the basis for identifying image schemas and conceptual metaphors.

⁶This is confirmed by the many presentations at the *Tyndale House Workshop in Greek Prepositions* that accounted for prepositions with image schemas.

- The ISCAT database of image schemas⁷, which groups, categorizes, and describes image schemas. It contains a list of related conceptual metaphors for each image schema it catalogues.
- The Master Metaphor List (Second Draft Copy)⁸. This list, consisting of structural metaphors of various levels of hierarchy, is compiled and edited by Lakoff et. al.

The image schema is chosen primarily based on its match with the basic meaning; for example, ‘in’ is a basic meaning that naturally matches CONTAINMENT/CONTAINER. Once that choice is made, the image schema is compared against the contextual meaning to ensure that the image schema captures the contrast between the contextual and basic meaning that deems the contextual meaning to be metaphoric; for example, CONTAINMENT/CONTAINER captures the contrast between cause and constraint in the sense that an effect is constrained by a cause. If the contrast is not captured by the chosen image schema, another suitable image schema is chosen and tested in a similar manner. If this is not possible, it may be the case that a different basic meaning and contrast have to be identified including something more general. The SPACE/LOCATION image schema is a general image schema that is a last resort in the search for the contrast of an identified basic meaning; its use in place of more specific image schemas is discussed in Section 4.7.2 (p. 115).

Once the image schema is chosen, we search for a metaphor that explains the contrast fully, in part, or indirectly. For example, BEING RESTRICTED IS BEING IN A CONTAINER relates restriction to containers and explains part of the meaning. An example of a metaphor that fully explains a meaning is PURPOSES ARE DESTINATIONS which explains how εἰς (*eis*, ‘to’) is used metaphorically to convey purpose. Indirectly accounting for mappings takes place when the logic of a metaphor from a different conceptual domain is applied; this is covered in detail in the results and discussion (p. 125).

A final note on the methodology is related to MIP’s requirement that results from various analysts be compared and reconciled, which is done for the purpose of measuring the reliability of various findings and to trigger discussions about any discrepancies found. In our case, having multiple judgments regarding the metaphoricity of a preposition is not feasible due to lack of resources. In addition, in this study, the metaphorical theories, procedures, and methods are mainly being treated as tools for individual analysis. Finally, the field of Biblical studies does not impose a statistical basis of reliability and allows the individual analysis of an exegete to stand on its own; at the same time, such analyses are part of a larger debate and each interpretation is not exempt from scrutiny and critique.

⁷Retrieved September 2015 at <http://iscat.stefciu.de>.

⁸Retrieved September 2015 at <http://araw.mede.uic.edu/alansz/metaphor/METAPHORLIST.pdf>.

Once the MIP analysis is complete, the prepositional senses, and the matching basic meaning, image schema (and its category), and related metaphor (and its system, grouping, or category) are recorded and tabulated. Based on this data, various observations are made regarding associations and frequencies. These include:

1. Prepositions and their associated image schemas
2. Contextual/basic meaning pairs and their associated prepositions and image schemas
3. Image schemas and domains of contextual meaning
4. Image schemas and domains of basic meaning
5. Related metaphors and their overarching metaphor system, grouping, or category

In our analysis, we do not make a distinction between semantic domains and conceptual domains. We use the Louw-Nida semantic domains of the contextual meaning and basic meaning to refer to the target domain and source domain, respectively. Our choice is not rooted in a commitment to any of the existing views within the debate on this matter (Martínez-Manrique, 2010). Rather, it's based on the discovery during initial analysis that having an intermediate step where a conceptual domain name is assigned to the contextual and basic meanings does not yield a name that is significantly different from its semantic domain. Thus, it's a pragmatic choice tied to our experience with the data set.

3.4.1 Sample Analyses

We include two sample analyses (Tables 3.6 and 3.7) to illustrate how we obtain the results of the MIP and cognitive analysis. In both of the analyses, the PATH image schema accounts for the metaphoric use of εἰς. However, it is worth noting that the PATH image schema consists of three components: a start point, an end point, and a path that connects the two points (Johnson, 1987). The contextual meaning found in each analysis profiles (i.e., emphasizes) a different component (Langacker, 1986, 2006).

	Preposition: εἰς (<i>eis</i>)
	Contextual meaning
Louw-Nida Number:	89.48
Meaning listed:	g so that (result)
Domain/subdomain:	89 Relations/H Result (89.39-89.54)
Full definition:	89.48 εἰςg; ἐνr: markers of result, with the probable implication of a preceding process—‘with the result that, so that as a result, to cause.’ εἰςg: εἰς τὸ εἶναι αὐτοὺς ἀναπολογήτους ‘so that as a result they are without excuse’ Ro 1:20; εἰς τὸ καταξιωθῆναι ὑμᾶς τῆς βασιλείας τοῦ θεοῦ ‘as a result you will be worthy of the kingdom of God’ 2 Th 1:5. It is also possible to interpret εἰς in this construction of 2 Th 1:5 as purpose (see εἰςf, 89.57). ὅτι τὸ χρηστὸν τοῦ θεοῦ εἰς μετάνοιάν σε ἄγει ‘because the kindness of God leads you to repent’ Ro 2:4. It would be possible to interpret εἰς . . . ἄγω in Ro 2:4 as being purely an expression of cause since ἄγωγ (see 36.1) also involves a component of cause, and therefore one may interpret the expression εἰς μετάνοιάν σε ἄγει as ‘it causes you to repent.’ In either case, however εἰς marks a resulting event or state. καὶ εἰς ἀπώλειαν ὑπάγει ‘and he goes to destruction’ Re 17:8.
	Basic meaning
Louw-Nida Number:	84.16
Listed meaning:	a to (extension)
Domain/subdomain:	84 Spacial Extensions/B Extension To a Goal (84.16-84.28)
Full definition:	84.16 εἰςa: extension toward a special goal—‘to, toward, in the direction of.’ ἤρχοντο εἰς τὸ μνημεῖον ‘they went to the tomb’ Jn 20:3; ὅτε ἤγγισαν εἰς Ἱερουσόλυμα ‘as they drew near to Jerusalem’ Mt 21:1.
	Conceptual metaphor
Metaphor:	Yes
Metaphor type:	Abstract
Image schema:	SPACE/PATH
Related metaphor:	EVENT STRUCTURE (LOCATION CASE)/CHANGE OF STATE IS CHANGE OF LOCATION

Table 3.6: Sample analysis of εἰς (*eis*)/89.48.

Preposition:	εἰς (<i>eis</i>)
	Contextual meaning
Louw-Nida Number:	89.57
Meaning listed:	f in order to (purpose)
Domain/subdomain:	89 Relations/I Purpose (89.55-89.64)
Full definition:	89.57 εἰςf: a marker of intent, often with the implication of expected result—‘for the purpose of, in order to.’ εἰς τὸ καταξιωθῆναι ὑμᾶς τῆς βασιλείας τοῦ θεοῦ ‘for the purpose of your becoming worthy of the kingdom of God’ 2 Th 1:5. It is also possible to interpret εἰς in this construction of 2 Th 1:5 as result (see εἰςg, 89.48). προσένεγκον τὸ δῶρον ὃ προσέταξεν 6 See page 782. Μωϋσῆς, εἰς μαρτύριον αὐτοῖς ‘take the offering which Moses prescribed, in order to provide proof for them’ Mt 8:4; εἰς τοῦτο ἐλθλυσθα εἰς τὸν κόσμον ‘for this purpose I came into the world’ Jn 18:37; φῶς εἰς ἀποκάλυψιν ἐθνῶν ‘light to serve as a revelation to the Gentiles’ Lk 2:32.
	Basic meaning
Louw-Nida Number:	84.16
Listed meaning:	a to (extension)
Domain/subdomain:	84 Spacial Extensions/B Extension To a Goal (84.16-84.28)
Full definition:	84.16 εἰςa: extension toward a special goal—‘to, toward, in the direction of.’ ἤρχοντο εἰς τὸ μνημεῖον ‘they went to the tomb’ Jn 20:3; ὅτε ἤγγισαν εἰς Ἱεροσόλυμα ‘as they drew near to Jerusalem’ Mt 21:1.
	Conceptual metaphor
Metaphor:	Yes
Metaphor type:	Abstract
Image schema:	SPACE/PATH
Related metaphor:	EVENT STRUCTURE (STATES)/STATES ARE LOCATIONS/ 1. PURPOSES ARE DESTINATIONS

Table 3.7: Sample analysis of εἰς/89.57.

In the case of εἰς (*eis*)/89.48, the contextual meaning emphasizes the result, which means that the end point is profiled. On the other hand, for εἰς (*eis*)/89.57 the contextual meaning of purpose profiles both the start point and end point since purpose is concerned with an end result (end point) that is intended at the beginning of an action (start point). Although there is a point of emphasis in each case, the other components of the image schema are still essential to the meaning. For example, in the case of εἰς (*eis*)/89.48, where the emphasis is on the result, the components of path and start point are still necessary because a result is reached through a path that has a starting point. These two prepositional senses show that even though image schemas are minimal representations, they map to multiple meanings.

3.5 Translation Analysis Procedure

This inquiry also addresses how metaphors are affected by translation from Greek (*SBLGNT*) to English (*LEB*). It is concerned with whether the same metaphor is preserved in English via a literal translation or if it is substituted with a translation that conveys a different basic meaning. The translation analysis that we develop is rooted in the approach and results of the MIP and cognitive analysis; it is based on the contextual/basic distinction of MIP and takes into consideration the image schemas identified in the cognitive analysis. Accordingly, the preservation of metaphor is defined as translation that reflects the basic meaning identified in the MIP analysis and substitution is defined as a translation that uses a basic meaning found in another meaning for the same preposition or a different preposition, resulting in the substitution of the image schem with another or perhaps preserving it while establishing a different relation to the contextual meaning (i.e., the different basic meaning requires a different explanation for the image schema, even if it is the same one identified for the Greek preposition).

A translation preserves the metaphor when it consists of one of the glosses included in the Louw-Nida lexicon definition of the basic meaning identified in the MIP analysis. At the same time, we are interested in knowing if the translation is also among the glosses in the Louw-Nida definition of the contextual meaning for two reasons. First, the overlap of glosses for the contextual meaning and basic meaning conveys that the prepositional metaphor exists in the target language (English) or can be understood by readers. Second, when there is no overlap and a gloss for the basic meaning is used for translation, this conveys a degree of intentionality by the translator to preserve the metaphor across the two languages.

The first step in carrying out this analysis is determining the source of the translation from among the glosses in the Louw-Nida definitions⁹ identified for contextual and basic meanings in the MIP procedure. We refer to these glosses as contextual glosses (i.e., a gloss from the definition of a contextual meaning) and basic glosses (i.e., a gloss from the definition of a basic meaning).

The comparison of the *LEB* translations is carried out for both contextual and basic glosses because the two sets are separate and not identical, but can overlap. In addition, translators do not always use the contextual glosses according to the tagging of the corpus. For example, the prepositional sense $\delta\acute{\iota}\alpha$ (*dia*)/89.26 (*dia*) has a contextual meaning of *reason* and its (contextual) glosses are ‘because of’, ‘on account of’, and ‘by reason of’; its corresponding basic meaning (84.29) has one (basic) gloss: ‘through’. In this case, the contextual glosses do not overlap

⁹Each Louw-Nida definition lists one or more glosses for the prepositional sense it defines (cf. example in Table 3.5 on p. 24). In addition, it lists representative glosses in a Greek-English index (cf. example in Table 3.4 on p. 23). Although we refer to the representative gloss in the earlier parts of the chapter, the evaluation taking place in this section takes all of the available glosses into consideration.

and the *LEB* translates this prepositional sense using both the contextual glosses and the basic gloss. Thus, even though a literal translation is not among the contextual glosses, it is used in the translation and this is captured by the analysis. Another sense for the same preposition is $\delta\iota\acute{\alpha}$ (*dia*)/89.76 (*dia*). Its contextual meaning of *means* has glosses of ‘by means of’, ‘through’, and ‘by’ and it has the same basic meaning/gloss as $\delta\iota\acute{\alpha}$ (*dia*)/89.26 (*dia*, ‘through’). This prepositional sense is translated as ‘through’ which is considered to be simultaneously based on the contextual and basic gloss since it exists in both sets.

Based on this distinction, each translation is assigned a pair of labels, a *contextual translation label* and a *basic translation label* for each translation. The label indicates whether the translation is based on the definition of its contextual/basic meaning or that of another prepositional sense, or even another preposition. As a result of this procedure we determine whether the English translation consists of a preposition, a non prepositional expression, or no translation of the preposition.

The procedure runs as follows:

1. Assign the contextual translation label.
 - (a) Check if the prepositional sense is translated into English. If not, give it a contextual translation label of **NoTr**.
 - (b) Check if the translation matches a gloss in its own definition. If yes, give it a contextual translation label of **CDef**.
 - (c) If no match is found, check if the translation matches a gloss in the contextual definition of another abstract metaphoric sense belonging to the same preposition. If yes, give it a contextual translation label of **COthSen**.
 - (d) If no match is found, check if the translation matches a gloss in the contextual definition of a metaphoric sense of another preposition. If yes, give it a contextual translation label of **COthPrep**.
 - (e) If no match is found, conclude that the preposition is not translated with any of the contextual glosses available for the abstract metaphoric prepositions in the corpus. Give it a contextual translation label of **CNoPrep**.

2. Assign the basic translation label.

- (a) Check if the prepositional sense is translated into English. If not, give it a basic translation label of **NoTr**.
- (b) Check if the translation matches a gloss in the definition of its corresponding basic meaning. If yes, give it a basic translation label of **BDef**.
- (c) If no match is found, check if the translation matches a gloss in the definition of a basic meaning corresponding to another abstract metaphoric sense belonging to the same preposition. If yes, give it a basic translation label of **B0thSen**.
- (d) If no match is found, check if the translation matches a gloss in the definition of a basic meaning corresponding to the metaphoric sense of another preposition. If yes, give it a basic translation label of **B0thPrep**.
- (e) If no match is found, conclude that the preposition is not translated with any of the glosses available for basic meanings of abstract metaphoric prepositions in the corpus. Give it a basic translation label of **BNoPrep**.

Label Type	Translation Label	Matches gloss in definition of	<i>matching prepositional sense</i>
Contextual	CDef	contextual meaning of	self
Basic	BDef	basic meaning of	
Contextual	C0thSen	contextual meaning of	another sense of the same preposition
Basic	B0thSen	basic meaning of	
Contextual	C0thPrep	contextual meaning of	sense of another preposition
Basic	B0thPrep	basic meaning of	
Contextual	CNoPrep	contextual meaning of	no prepositional sense in the corpus
Basic	BNoPrep	basic meaning of	
Contextual	NoTr	<i>not translated</i>	<i>n/a</i>
Basic			

Table 3.8: Summary of translation labels.

In summary, whether a translation is being compared against the contextual glosses or the basic glosses, it is matched with one of the following according to the first match: (1) a gloss in the definition of its sense, (2) a gloss of another sense for the same preposition, or (3) a gloss of another preposition. Otherwise it is either not translated or its translation does not consist of any glosses available in the definitions of prepositions within the corpus. Table 3.8 contains a summary of the meanings of the translation labels that emphasizes the symmetry in how they are defined. However, as mentioned and illustrated above (p. 32), the symmetric pairs (i.e. CDef/BDef, C0thSen/B0thSen, C0thPrep/B0thPrep, CNoPrep/BNoPrep) are independent of another. Thus, various combinations are possible (e.g., CDef/BNoPrep, C0thSen/BDef, C0thSen/BNoPrep, C0thSen/B0thSen). This notion will be further emphasized in the sample analyses below.

Based on the results of this procedure, we determine the distribution of translations and their sources as well as non-translations. Subsequent analysis focuses on translations consisting of basic meanings. Translations consisting of an English gloss from the basic meaning of the prepositional sense (as in the case of $\delta\acute{\iota}\alpha$ (*dia*)/89.26 [*dia*]) are considered preservations of the metaphor across the two languages. We explore the likelihood and frequency of such translations and also seek explanations for English translations that are metaphoric but do not consist of glosses found in the definition of the basic meaning identified in MIP for the prepositional sense.

3.5.1 Sample Analyses

Again we include examples to illustrate the data that results from the analysis. The objects of analysis in this section are $\epsilon\acute{\iota}\varsigma$ (*eis*)/89.48 and $\epsilon\acute{\iota}\varsigma$ (*eis*)/89.57, the same prepositional senses covered in the sample MIP and cognitive analysis above (3.4.1 p. 30).

$\epsilon\acute{\iota}\varsigma$ (*eis*)/89.48 (*result*) has the following contextual glosses: ‘so that’, ‘with the result that’, ‘so that as a result’, and ‘to cause’. The first is the representative gloss from the Greek-English index of the Louw-Nida lexicon and the other three are from the Louw-Nida definition. Table 3.9 shows that the representative gloss (‘so that’) is the only gloss used among these. This is indicated by the contextual translation label of CDef. The basic translation label of BNoPrep is naturally expected since ‘so that’ is not a preposition.

For the rest of the translations, there is a variety of translation label pairs. C0thSen/BDef indicates three literal translations that are not contextual glosses, but are basic glosses: *leading* to, ‘to’, and ‘toward’. The basic glosses of $\epsilon\acute{\iota}\varsigma$ (*eis*)/89.48 are ‘to’, ‘toward’, and ‘in the direction of’. The translation ‘*leading* to’ is considered as a basic gloss because the ‘to’ is counted as a prepositional translation and the ‘*leading*’ is ignored (for more details cf. Section 3.6.5 on p. 41 and Table 3.13 on p. 42). The partial translation ‘that’ is labeled as

Translation	Translation Label	
	Contextual	Basic
-	NoTr	NoTr
<i>leading to</i>	COthSen	BDef
for	COthSen	BNoPrep
in	COthSen	BOthPrep
into	COthSen	BOthSen
to	COthSen	BDef
toward	COthSen	BDef
so	CNoPrep	BNoPrep
so that	CDef	BNoPrep
that	CNoPrep	BNoPrep
with the result	CNoPrep	BNoPrep

Table 3.9: Translation analysis of εἰς (*eis*)/89.48 (*result*)

CNoPrep/BNoPrep indicating that the gloss is not listed for any other prepositions in the Pauline Corpus, neither as a contextual gloss nor as a basic gloss. Two similar translations, ‘into’ and ‘in’, have the contextual label of COthSen, meaning that (at least) one other sense of εἰς (*eis*) has the gloss in the definition of its contextual meaning. The BOthSen basic translation label indicates that ‘in’ is a gloss for another sense of εἰς (*eis*) and ‘into’ is a basic gloss for another preposition (ἐν, *en*). Finally, ‘for’ is an English preposition, but it is not listed as a representative gloss for any basic prepositional senses even outside the Pauline corpus (BNoPrep), but it is listed as a contextual gloss for other senses of εἰς (*eis*). These last three translations have a low frequency in the corpus (5 and below) and indicate that the translation does not agree with the tagging of the corpus. Low frequency translations are excluded from the analysis; this is detailed in the results and discussion chapter (p. 137).

Translation	Translation Label	
	Contextual	Basic
-	NoTr	NoTr
- <i>become</i>	NoTr	NoTr
<i>leading to</i>	COthSen	BDef
for	COthSen	BNoPrep
in	COthSen	BOthPrep
in order to	CDef	BNoPrep
into	COthSen	BOthSen
resulting in	CNoPrep	BNoPrep
so that	CNoPrep	BNoPrep
that	CNoPrep	BNoPrep
to	COthSen	BDef
<i>to lead to</i>	COthSen	BDef

Table 3.10: Translation analysis of εἰς (*eis*)/89.57 (*purpose*)

εἰς (*eis*)/89.57 (*purpose*) has the same basic glosses as εἰς (*eis*)/89.48 (‘to’, ‘toward’, and ‘in the direction of’), but a different set of contextual glosses (‘for the purpose of’, ‘in order to’). Its translation analysis has the same set of translation label pairs; thus, they are not explained in detail. However, there are three observations worth noting. First, the partial translation ‘for’ is the most frequent translation and is labeled as **COthSen** because it is listed as a contextual glosses of εἰς (*eis*)/90.41 (*benefaction*) and εἰς (*eis*)/90.59 (*experienter*). Nevertheless, this is the most frequent translation of this prepositional sense (52), more than twice the frequency of translations consisting of contextual and basic glosses from the definitions (‘in order to’ and those containing ‘to’) which have a combined frequency of 25. The second observation to note is that certain translations reflect *result* (‘resulting in’, ‘so that’, ‘that’) in that they use ‘result’ explicitly or translations of εἰς (*eis*)/89.48 (*result*); these occur a total of 13 times. Finally, the translations of ‘in’ and ‘into’ indicate interpretations different from the tagging; the closest meanings associated with these translations are those related to *state* and *change of state* which are remotely and indirectly related to *purpose* and *result* which imply arrival to certain state.

3.6 Data Sets

This section describes the data sets created for the purpose of the analysis and the data sets resulting from the analysis. Some of these exist in Greek/English pairs and others stand on their own; they are listed in Table 3.11. The first five data sets listed consist of the prepositional senses of the Pauline corpus within the prepositional phrases and verses that contain them, including aligned translations. They also include additional, separate, and independent tagging of certain prepositional instances from two sources.

- *Exegetical Summary Series* which selectively tags certain words in the Greek New Testament (*UBS4*).
- The Louw-Nida lexicon which tags prepositional instances by virtue of using them as examples in definitions.

The above mentioned seven data sets are consolidated into a single file (*pcP-master*). Another data set pair containing glosses of contextual and basic meanings is used for the translation analysis. These data sets in addition to the Louw-Nida lexicon, LSJ lexicon, Image Schema Catalogue (ISCAT) and Master Metaphor List (described above in Sections 3.3 and 3.4) contain the data needed to carry out the MIP analysis, cognitive analysis, and translation evaluation. The two last data sets contain the results of the analysis: the combined MIP/cognitive analysis and the translation analysis.

1	pcP-sblgntI pcP-lebRI	<i>SBLGNT</i> interlinear and <i>LEB</i> reverse interlinear
2	pcP-prepLN	A unique list of preposition/Louw-Nida number pairs
3	pcP-sblgntPP pcP-lebPP	Delimited prepositional phrases in the <i>SBLGNT</i> and <i>LEB</i>
4	pcP-prepLNconc	A concordance of preposition/Louw-Nida number pairs
5	pcP-transP	Alignment of <i>SBLGNT</i> interlinear glosses and <i>LEB</i> reverse interlinear translations
6	pcP-es	Louw-Nida analysis of prepositions from Exegetical Summary Series
7	pcP-lexiconLN	Louw-Nida analysis from Louw-Nida definitions
8	pcP-master	Consolidation of the several data sets
9	pcP-glossesCon pcP-glossesBas	List of English glosses from Louw-Nida definitions of Greek prepositional senses identified as contextual and basic in the MIP analysis
10	pcP-analysisMIPcog	Tabulation of MIP analysis and images schema/related metaphor analysis
11	pcP-analysisTr	Tabulation of translation analysis

Table 3.11: Listing of data sets used for analysis

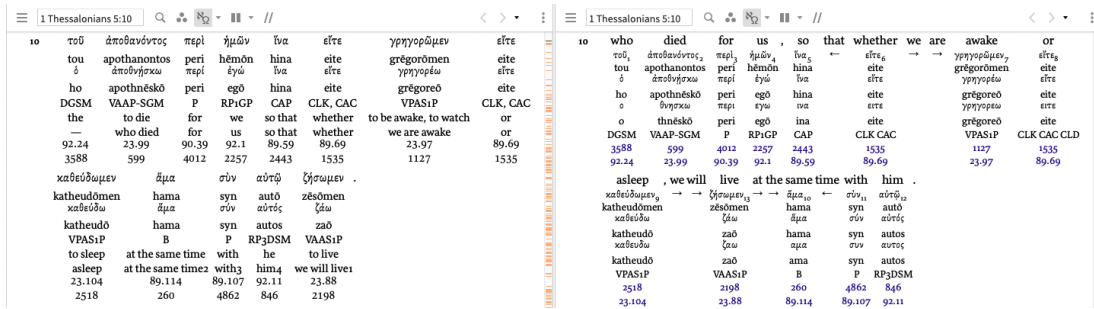


Figure 3.1: *SBLGNT* interlinear and *LEB* reverse interlinear in Logos Bible Software.

3.6.1 Interlinears (`pcP-sblgntI`; `pcP-lebRI`)

An interlinear and a reverse interlinear based on the *SBLGNT* and *LEB* are also accessible in *Logos Bible Software*. Interlinears contain a word-by-word alignment of a document (source text) and a gloss (translation) for each word; in such an alignment, the word order of the source text is preserved. In addition to the source text and translation, an interlinear can contain additional lexical and grammatical information such as part-of-speech tags and lexical forms (i.e., basic form of the word found in dictionary entries). For the purpose of our analysis, we are only concerned with the part-of-speech tagging, the lemma or lexical form of the preposition,¹⁰ and the Louw-Nida number tagging, but all the information is included in the corpus for completeness and any future potential use of the corpus in a wider scope. A reverse interlinear is based on a translation and preserves its word order, thus the source text is reordered when the translation word order differs from the original text. Since the aforementioned lexical and grammatical information is based on the source text, it can be included in the reverse interlinear. The data of each, the interlinear and reverse-interlinear, is exported in HTML format and converted to plain text format where each word and its accompanying linguistic information is on a single line of delimited values.

Figure contains a screenshot of these two resources in Logos Bible Software.¹¹ The crucial difference which requires us to use both is that the reverse interlinear contains the text of the English translation rather than a word-by-word gloss which is already found in the interlinear. The reverse interlinear is based on a translation that is rendered for reading; on the other hand, the word-by-word glosses are simply lexical aids do not constitute a translation of the Greek text (i.e., phrase, sentences, and paragraphs).

It must be noted that not all Greek words are translated into English and not

¹⁰In case it loses a vowel due to rules of orthography.

¹¹The screenshot is not from the same version of the software used during the analysis, but the content and data layout is the same.

all words in an English translation can be mapped to a Greek word in the source text. In this investigation, we are only interested in how a Greek preposition is translated into English; we do not account for English prepositions in the *LEB* that are not translations of a Greek preposition in the *SBLGNT*.

3.6.2 Unique List of Preposition/Louw-Nida Number Pairs (pcP-prepLN)

MIP is presented as a procedure that is applied to a text on a word-by-word basis. For a large corpus, this is not the most efficient means of completing the task of tagging. Alternatively, one can identify the contextual meanings of all the words and compile a list of unique words and their various contextual meanings, then for each meaning, one can find a basic meaning. All the words in the corpus are tagged with a Louw-Nida number which keys into the lexicon definition containing its contextual meaning. Based on this, we simply take each contextual meaning and find a basic meaning for it as specified in section 3.4. Each unique combination of preposition and Louw-Nida number is given a unique numerical identifier for the purpose of data management and processing.¹²

3.6.3 Delimited Prepositional Phrases (pcP-sblgntPP; pcP-1ebPP)

The *SBLGNT* and *LEB* are accessible in various digital formats, including plain text (TXT) and PDF. The *SBLGNT* is also accessible through *Logos Bible Software* in an annotated version named *The Lexham Syntactic Greek New Testament: SBL Edition* (syntactic *SBLGNT*). The syntactic *SBLGNT* delimits clauses and phrases, and arranges them hierarchically. It can be searched for various syntactic constructs including prepositional phrases. In addition, it is possible to conduct a parallel search on the *LEB* as well as other translations and Greek texts.

The search results consist of Bible verses in which the targeted phrases are highlighted. These results are exported into HTML format and subsequently converted to a plain text format that is more suitable for the purposes of the inquiry. The format has brackets (‘[’ ... ‘]’) surrounding each prepositional phrase. This format serves as the basis for the concordance of prepositions/Louw-Nida number pairs (pcP-prepLNconc) described in a later section. The prepositional phrases are re-delimited in cases where the object of the preposition contains lengthy subordinate clauses that are not required by the analysis. The search results, however, do not account for all prepositions. Of the 2,994 verses containing

¹²The number sequence is determined by the alphabetical ordering of the English transliteration of the preposition and the Louw-Nida number. The number sequence contains gaps because of subsequent corrections and the omission of idioms from the scope of the inquiry.

prepositions, 144 are added manually to the search results to complete the data set.

Each entry contains a single prepositional phrase; in cases where a verse contains multiple prepositional phrases, the verse is duplicated. Below is an example of this from Romans 1:2 (Table 3.12), which contains the prepositional senses of *διά* (*dia*, ‘through’) and *ἐν* (*en*, ‘in’).

ο προεπηγγειλατο [δια των προφητων αυτου] εν γραφαις αγιας	ο προεπηγγειλατο δια των προφητων αυτου [εν γραφαις αγιας]
which he promised previously [through his prophets] in the holy scriptures,	which he promised previously through his prophets [in the holy scriptures],

Table 3.12: Example of a verse with multiple prepositional phrases in pcP-sblgntPP and pcP-lebPP (Romans 1:2).

3.6.4 Concordance of Preposition/Louw-Nida Number Pairs (pcP-prepLNconc)

For each prepositional sense found in the interlinear (pcP-sblgntI), a concordance is created from the data sets containing the delimited prepositional phrases (pcP-sblgntPP and pcP-lebPP). The data sets being searched do not contain Louw-Nida numbers, thus the automated search to create the concordance is based on the verse references of the prepositions found in the interlinear (pcP-sblgntI).

3.6.5 Aligned Interlinear and Reverse Interlinear (pcP-transP)

The glosses in the *SBLGNT* interlinear and the translations in the *LEB* reverse interlinear are aligned and annotated/marked where necessary. Cases requiring annotation are listed and accompanied by examples in Table 3.13. These cases mostly consist of the omission of the preposition in the translation, additional words in translation, and intervening pronouns in multi-word translations¹³. In such cases, the preposition, its omission, or its multi-word translation are isolated with front slashes (‘/’). In the case of multi-word translations, the goal of the annotation is to capture common terms between the gloss and translation. The example in Table 3.13 shows *for* and *sake* marked while other tokens are not. Additional words that are not part of a literal rendering of the preposition are

¹³Another case requiring such annotation is that of idioms, but these are not covered in this study.

marked with square brackets ([...]). Other exceptional cases are marked with a star (*); the example table accounts for the preposition ‘in’ being included in the compound word ‘inasmuch’. The purpose of such annotation is to mark translations that do not match any of the glosses in the Louw-Nida definitions in order to further inspect whether they have any equivalence to an existing gloss. For example, ‘for your sake’ does not match the gloss ‘for the sake of’ in a letter-by-letter comparison, but it is equivalent to it. Also in the case of ‘inasmuch’, we consider ‘in’ as part of the translation and therefore equivalent. This is of use to the translation analysis which compares translations to Louw-Nida glosses.

Case Requiring Mark-Up	Gloss Mark-Up	Translation Mark-Up
Omission of preposition in translation	/in/ an indirect image	/-/ indirectly
Additional words	/from/	[born] /from/
Intervening pronouns in multi-word translation	/for/ the /sake/ of [you]	/for/ [your] /sake/
Other exceptional cases	/in/ as much as	/-*/ inasmuch as

Table 3.13: Mark-up of special cases in translation.

3.6.6 Analysis from Exegetical Summary Series (pcP-es)

For the purpose of cross-validating the tagging in the *SBLGNT* interlinear, the Louw-Nida tagging of prepositions in the Pauline Corpus are extracted from the electronic edition of *The Exegetical Summaries Series (ESS)* (SIL, 2012), an exegetical resource containing analysis at various linguistic levels (i.e., word, phrase, sentence, discourse unit). We make use of the word-level analysis which contains Louw-Nida numbers. The ESS Louw-Nida numbers are aligned with the interlinear data sets (pcP-sblgntI and pcP-1ebRI) by matching the prepositions and verse references across the two data sets. This data set is used for the cross-validation of the tagging found in the *SBLGNT* interlinear.

3.6.7 Analysis from Louw-Nida Definitions (pcP-lexiconLN)

As mentioned earlier in Section 3.3, each definition entry in the Louw-Nida lexicon contains one or more examples consisting of verses from the New Testament. The examples match a given instance of a preposition with a Louw-Nida number. The verses referenced in the definitions are compiled in this data set for additional cross-validation of the tagging of the *SBLGNT* interlinear.

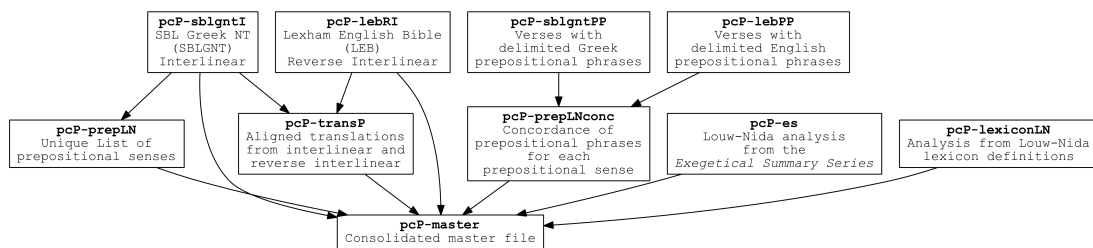


Figure 3.2: Consolidation of data sets into the master file.

3.6.8 Master Data Set (**pcP-master**)

For each prepositional instance in the *SBLGNT* interlinear, the matching data items in the rest of the data sets are combined to form a master data set. Thus, this data set consolidates all the data sets described above; this is illustrated in Figure 3.2. For each prepositional sense there is a seven-line entry. Each line consists of a set of seven identifiers delimited by a colon (‘:’) followed by the data. The first six identifiers are repeated for every line; they are described in Table 3.16. The last identifier of each line names the data set to which the subsequent data on the line belongs.

Below is an example that is divided into two tables, the first for the identifiers and the second for the data. The **pcP-prepLN** (unique prepositional senses) and **pcP-prepLNconc** (prepositional sense concordance) data sets are represented implicitly through the sixth identifier. This identifier indicates the prepositional sense (preposition/Louw-Nida number pair); and based on this identifier, the concordance for that preposition/Louw-Nida number pair can be accessed. This identifier is explained in Table 3.16.

<pre>mst-1472:m-11769:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-sblgntI: mst-1472:m-11770:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-lebRI: mst-1472:m-11771:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-sblgntPP: mst-1472:m-11772:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-lebPP: mst-1472:m-11773:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-trans: mst-1472:m-11774:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-lexicon: mst-1472:m-11775:pcs-16982:pcl-16883:hyperekeina-83.55:152-hyperekeina-83.55-081016:pcP-es:</pre>

Table 3.14: Master data file example part 1 of 2 (identifiers).

<pre>pcP-sblgntI:ὑπερέκεινα:hyperekeina:ὑπερέκεινα:hyperekeina:P, B:beyond:regions that lie beyond3:83.55:5238 pcP-lebRI:ὑπερέκεινα 3:e+ in >-3 e+ regions e+ that <e+ lie <e+ beyond <:hyperekeina:ὑπερέκεινα:hyperekeina:εκεί:ekei:P B:5238:83.55 pcP-sblgntPP:εις τα [ὑπερέκεινα υμῶν] εὐαγγελισσῶν οὐκ ἐν ἀλλοτρίῳ κανονί εἰς τὰ εἰρημὰ καυχῆσθαι pcP-lebPP:so that we may proclaim the gospel in the regions that lie [beyond you], and not boast in the things accomplished ... pcP-trans:regions that lie /beyond/ in the regions that lie /beyond/ pcP-lexiconLN:#LN.83.55 pcP-es:LNe.83.55</pre>

Table 3.15: Master data file example part 2 of 2 (data).

Identifier Position	Format	Example	Description
1	mst-DDDD ¹⁴	mst-1472	Identifier of preposition instance within master file (unique for each entry)
2	m-DDDDD	m-11769	Line number of text file ¹⁵
3	pcs-DDDDD	pcs-16982	pcs (Pauline Corpus <i>SBLGNT</i>) and line number of Greek preposition in the <i>SBLGNT</i> interlinear Pauline Corpus
4	pc1-DDDDD	pc1-16883	pc1 (Pauline Corpus <i>LEB</i>) and line number of English translation in the <i>LEB</i> reverse interlinear Pauline Corpus
5	PREPOSITION-LN_number	hyperekeina-83.55	Preposition and Louw-Nida number ¹⁶
6	<PREP_LN_PAIR_ID>- <PREPOSITION>- <LN_NUMBER>- <VERSE_REFERENCE>	152-hyperekeina-83.55-081016	Numerical identifier of preposition/LN number pair, preposition, Louw-Nida number, and verse reference

Table 3.16: Descriptions of the redundant data identifiers in the master data set.

3.6.9 English Glosses of Contextual and Basic Meanings (pcP-glossesCon; pcP-glossesBas)

For the purpose of evaluating whether translations came from glosses in the definitions of contextual and basic meanings found in the MIP analysis, we list the glosses for each prepositional senses. The glosses are extracted from the Louw-Nida lexicon definitions. We have two lists, one for the contextual meanings (pcP-glossesCon) and the other for basic meanings (pcP-glossesBas).

3.6.10 Tabulation of MIP and Image Schema Analysis (pcP-analysisMIPcog)

The results of the MIP analysis and the image schema analysis which includes finding related metaphors are tabulated to allow for further statistical analysis. The results of the analysis contain three main sections of data that are related to contextual meaning, basic meaning, and metaphor analysis. The essential fields from the tabulation of the the analysis are described below in Table 3.17. Figure 3.4 contains a graphical representation of the inputs and data sets that contribute to the tabulation of the MIP procedure results and the subsequent cognitive analysis.

¹⁴'D' stands for *digit*.

¹⁵Blank lines between each seven line entry are also numbered.

¹⁶When the preposition is not part of an idiom, this information is redundant with respect to the identifier in position 6.

Preposition:	The Greek preposition and its latin transliteration
Louw-Nida Number:	Louw-Nida number of the contextual meaning obtained from the tagging in the corpus
Meaning listed:	Representative gloss and abridged semantic domain as listed in Volume 2 of the Louw-Nida lexicon
Domain/subdomain:	Domain and subdomain to wich the Louw-Nida number of the contextual meaning belongs
Louw-Nida Number:	Louw-Nida number of the basic meaning identified in the MIP analysis
Listed meaning:	Representative gloss and abridged semantic domain as listed in Volume 2 of the Louw-Nida lexicon
Domain/subdomain:	Domain and subdomain to wich the Louw-Nida number of the basic meaning belongs
Metaphor:	Conceptual metaphor If the preposition is a metaphor per the MIP criteria
Metaphor type:	Abstract metaphor, time metaphor, or literal (not a metaphor)
Image schema:	The name and category of the image schema
Related metaphor:	The name and/or hierarchy of the related metaphor

Table 3.17: Description of main fields tabulated in pcP-analysisMIPcog.

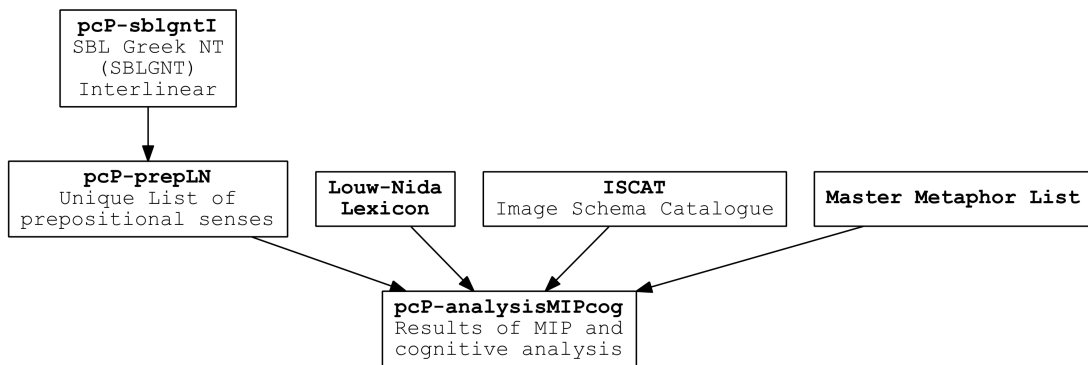


Figure 3.3: Input files and output file of MIP and cognitive analysis.

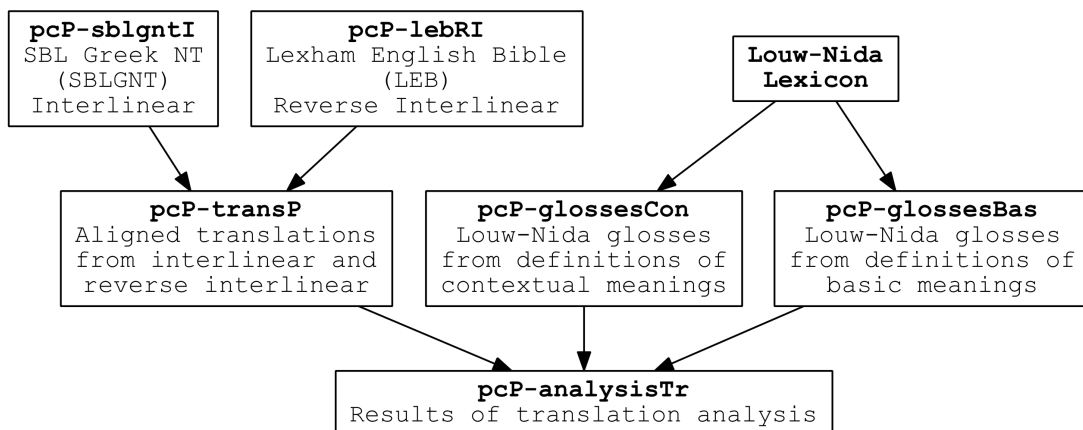


Figure 3.4: Input files and output file of the translation analysis.

3.6.11 Tabulation of Translation Analysis (**pcP-analysisTr**)

From the *SBLGNT* interlinear data set (**pcP-sblgntI**) we extract the unique set of translations for each prepositional sense and include its frequency. The file includes two additional fields, one indicating the source with respect to glosses of contextual meanings (**pcP-glossesCon**) and glosses of basic meanings (**pcP-glossesBas**). The translation procedure for determining the source of the translation described in Section 3.5 (p. 32). Figure 3.4 contains a graphical representation of the inputs and data sets that contribute to the tabulation of the translation analysis.

3.7 Summary of Methodology

The proposed methodology for exploring metaphors in prepositions is based on the analysis outlined in MIP, but also accounts for them through image schemas and, where applicable, conceptual metaphors. Various combinations between prepositional senses (contextual meanings), basic meanings, image schemas, and conceptual metaphors are analyzed quantitatively and qualitatively. The analysis takes place in a corpus linguistic context with the Pauline corpus as the object of analysis. Finally, the translation of prepositions and their metaphors is evaluated.

Chapter 4

Results and Discussion

The aim of this study is to characterize the metaphoricity of abstract Greek prepositions and their translations into English in terms of image schemas and how they relate to contextual meanings, basic meanings, and conceptual metaphors. The mechanism that enables this exploration is an augmented version of the Metaphor Identification Procedure (MIP) that contains an additional step to identify an image schema that accounts for the relation between the basic and contextual meaning. This being a corpus-based study, the findings include corpus frequencies (refer to Section 4.1.2 on p. 50). The results are presented in three parts along with discussion pertinent to them.

Based on the findings, Section 4.2 lays out a global view of the prepositional usages identified: literal, time metaphoric, and abstract metaphoric. Time metaphors are covered briefly in Section 4.3. The bulk of the study, consisting of an image-schema centered, multi-faceted analysis of prepositional abstract metaphors in Greek and their translation into English begins in Section 4.4 and ends in Section 4.9. We begin with an overview of abstract prepositions which introduces the mappings between contextual/metaphoric meanings and basic meanings; this is followed by findings regarding the relations between contextual meaning, basic meaning, and image schema, as well as conceptual metaphors and translation.

The results are organized in a manner that reflects the order of the analysis which consists of (1) applying the MIP procedure, (2) identifying the image schemas, (3) identifying related metaphors, and (4) translation analysis.

Section 4.4 gives an overview of the abstract prepositions with the aim of ensuring that all the mappings between contextual and basic meanings are accounted for. It lists the mappings, their frequencies, and the image schemas that account for the mapping; the discussion refers to these items as well as related metaphors where necessary. This serves as a summary of the analytical process of understanding the contextual/metaphoric meanings in contrast to basic meanings.

In subsequent sections, the analysis employs matrices to display intersections,

allowing the observation of patterns of intersection that can be related to both quantitative and qualitative observations. Sections 4.5 and 4.6 address the first research question (p. 3) regarding the level of cognitive ambiguity of prepositions. Section 4.5 shows the intersections of prepositions and image schemas, taking into consideration the corpus and list frequencies of the intersections. Section 4.6 shows the number of image schemas found at the intersection of contextual domains and basic domains. Section 4.7 addresses the second question regarding how image schemas align with contextual meanings (4.7.1) and basic meanings (4.7.2). With respect to contextual meanings, we explore how contextual meanings map onto image schemas. With respect to basic meanings, we explore how directly the spatial meanings map correspond to image schemas.

The exploration then extends beyond image schemas to conceptual metaphors, and translation. Section 4.8 answers the question of how conceptual metaphors explain the image schema based mapping between the basic and contextual meaning. Finally, Section 4.9 evaluates how the metaphor of the Greek preposition in the *SBLGNT* is translated into English in the *LEB*, namely if the preposition and image schema are preserved.

4.1 Preliminary Considerations

The following is a review and introduction of terminology, notation, notions, and considerations related to (1) the presentation of the data, (2) the organization of the chapter, and (3) the verification of the tagging on which the analysis is based.

4.1.1 Prepositions, Louw-Nida Domains, Transliterations, and Translations

In the results and discussion, prepositions and their meanings are referenced and represented in various ways. Each Greek preposition is accompanied by a transliteration and a translation, where deemed appropriate. The transliteration is italicized and included in parentheses; if a translation is included, it follows the translation, separated by a comma. Transliteration is in italics and consists of roman letters and is taken from the *SBLGNT* transliterations, which uses the *Society of Biblical Literature* transliteration scheme. The English translation is in quotes and is taken from the primary gloss listed for the preposition sense in Volume II of Louw-Nida. Below is an example of the representation of a preposition.

ἐν (*en*, ‘in’)

As explained in Section 3.3 of Chapter 3 (Methodology), Louw-Nida is a lexicon that organizes the vocabulary of the Greek New Testament in a three-level

semantic domain hierarchy consisting of a top-level domain and two subdomains at the second and third levels of the hierarchy. Each sense of meaning of a word has a dot-separated two-part Louw-Nida number. When included, the Louw-Nida number immediately follows the Greek preposition, separated by a slash. Below is an example of the same preposition with an added Louw-Nida number.

ἐν/89.119 (*en*, ‘in’)

Our discussion is mainly centered on the second level of the hierarchy, but references to these usually include the semantic domain at the first level of the hierarchy¹. Hereafter we refer to the top-level of the hierarchy as the “domain” and the second level of the hierarchy as the “subdomain”. Domains are referenced by a number and a title; subdomains are referenced by a capitalized roman alphabet letter and a title; some titles include a brief addition in parentheses. Within paragraphs, the domain and subdomain references are italicized, but not within tables. When they are referenced together, they are separated by a front slash. For simplicity and due to space constraints, the following measures are taken:

- Parenthesized additions are only displayed in footnotes.
- Long titles are abbreviated after the first time they are displayed.
- Domains are only referenced by number.
- When subdomains are referenced alone, a left parenthesis follows the initial letter.
- Subdomains are referenced by letter when their name has been mentioned already.
- When necessary, Louw-Nida numbers are followed with a reference to the subdomain (in long or abbreviated form) in parentheses.

The following are examples showing separate, combined, and abbreviated references.

- *83 Spatial Positions*
- *83 Spatial Positions/J Beyond, On the Other Side Of*
- *83/J Beyond, On the Other Side Of*
- *83/J*
- *J) Beyond, On the Other Side Of*
- *83.44 (J)*

¹As we will observe, the top-level domain label does not serve our discussion and the third level of the hierarchy is only referenced as part of the Louw-Nida number.

4.1.2 Frequencies

Two main frequencies are referenced in this chapter. List frequency (“Freq.” in table headings) refers to the frequency of a given item within the unique list of prepositional senses (preposition/Louw-Nida pairs) which is the object of the MIP analysis. Corpus frequency refers to the frequency of a given item with respect to the entire Pauline Corpus; the bulk of the analysis will focus on this type of frequency.

4.1.3 Scope of Analysis

The study focuses on prepositions that have a spatial or physical meaning that are used individually (i.e., as part of an idiom or a pair of prepositions). Below we explain how these two constraints result in the elimination of certain prepositional instances.

With respect to the first constraint (prepositions being of spatial or physical meaning), three prepositional senses do not meet the criteria. $\chi\acute{\alpha}\rho\iota\nu$ /89.60 (*charin*), which means ‘for the purpose of, for the sake of, in order to’, has a basic meaning of *kindness* (88.66), which is historically older, but abstract. $\acute{\epsilon}\nu\epsilon\chi\alpha$ (*heneka*), also spelled $\acute{\epsilon}\nu\epsilon\chi\epsilon\nu$ (*heneken*), has no corresponding physical meaning in the dictionaries we referenced². $\sigma\acute{\upsilon}\nu$ (*syn*) is a comitative preposition (Luraghi, 2003) indicating accompaniment; although such a meaning can be applied to spatial/physical contexts, its meaning is not intrinsically spacial/physical. As mentioned in Section 2.4 of Chapter 2 (Methodology), Pragglejazz Group (2007) casts doubt on the appropriateness of distinguishing between a basic and physical meaning for this preposition.

For the second constraint, as indicated in section 3.4 of Chapter 3 (Methodology), only standalone prepositions are covered in the analysis, as opposed to those that are part of an idiom or a preposition pair. Louw-Nida has separate numbers for these and the corpus is tagged accordingly, thus, eliminating these instances on the analysis is determined by the Louw-Nida numbers. This leaves 2,867 prepositional instances (out of 3,006) for our analysis. Table 4.1 contains a more detailed listing for the frequencies and percent distributions of the prepositional senses; it contains footnotes identifying the eliminated prepositions and their corpus frequencies.

²Louw-Nida, BDAG, LSJ, M-M, GLRB

Status	Description	List Freq.	Corpus Freq.	% List	%PC
Analyzed	Prototypical Usages	169	2867	76.13%	95.38%
Not analyzed	Part of an idiom	45	78	20.27%	2.59%
	Part of a pair ³	2	10	0.90%	0.33%
	Non-preposition word ⁴	1	6	0.45%	0.20%
	No basic meaning ⁵	5	45	2.25%	1.50%
<i>Total</i>		222	3006	100.00%	100.00%

Table 4.1: Analyzed and un-analyzed prepositional instances.

4.1.4 Data Lacking Louw-Nida Numbers for Basic Meaning

The basic meaning for certain metaphoric preposition senses are taken from LSJ because they are not found in Louw-Nida. In order to incorporate these basic meanings into the analysis, we assign each a Louw-Nida domain and subdomain that corresponds to the meanings based on our judgment. Table 4.2 shows the prepositions, the LSJ definition number and excerpt, and the Louw-Nida subdomain assigned to the basic meaning found in LSJ.

Preposition	LSJ Definition Excerpt
	Louw-Nida Domain/Subdomain
ἀντί (<i>anti</i>)	A.I of Place, opposite , over against
	<i>83/G Opposite, Over Against, Across From, Offshore From</i>
ὑπέρ (<i>hyper</i>)	A.I.1 of Place, over ... in a state of rest, over , above
	<i>83/I Above, Below</i>
παρά (<i>para</i>)	C.III past, beyond
	<i>83/J Beyond, On the Other Side Of</i>

Table 4.2: Preposition/Louw-Nida number pairs without a corresponding basic meaning in Louw-Nida and their frequency distribution.

³Two prepositional senses: ἀπό-εις/13.62 (*apo-eis*) and ἐκ-εις/78.48 (*apo-eis*), both meaning ‘from’-‘to’, having corpus frequencies of 4 and 6, respectively.

⁴One preposition sense: χάριν/89.60 (*charin*), having a corpus frequency of 6.

⁵ἕνεκα (*heneka*), which is also spelled ἕνεκεν (*heneken*) tagged as *89.31*, *89.58*, and *90.43*, having corpus frequencies of 2, 3, and 1, respectively; σύν (*syn*) tagged as *89.105* and *89.107*, having frequencies of 1 and 38, respectively.

4.1.5 Format of Verse Examples

Examples consist of tables containing one or more verses or prepositional phrases from the corpus in Greek (without accentuation), transliteration (SBL Greek standard), and English (LEB translation). Most examples consist of verses accompanied by one or more pieces of additional information, the least of which is the verse reference. Additional information consists of five data items from the MIP analysis:

- Preposition in Greek.
- SBL Roman transliteration of the preposition.
- “Context:” followed by the Louw-Nida number and primary English gloss of the contextual meaning.
- “Basic :” followed by the Louw-Nida number and primary English gloss of the basic meaning.
- Image schema.

These are stacked vertically in the left hand column and the verses in the aforementioned formats are in the right hand column. Verse references occupy two rows and each data item occupies one row. Verses occupy anywhere from two to four rows; as a minimum, the Greek verse occupies three rows and the other formats occupy two rows each. When verses occupy more than two rows, this results in a blank cell of variable height below the additional information data items. Table 4.3 contains two examples, one with minimum size of each verse format and two where additional rows for verse data result in a blank cell under the verse info.

4.1.6 Verification of Tagging

As mentioned in the methodology, the words in the corpus are tagged with Louw-Nida numbers indicating their contextual meaning. The conclusions arrived at in this exploration are based on the assumption that the tagging in the *SBLGNT Interlinear* are correct. We consider it outside of the scope of this work to validate all the tagging of this corpus, but in order to get an idea of the accuracy of the tagging, we validate it using available sources. Data set `pcP-es`, which contains evaluations from the *The Exegetical Summaries Series (ESS)*, is used to validate the tagging.⁶ 94.59% of the list is covered; in the corpus the coverage is 62.37%. The results of the validation show that *ESS* agrees with 39.54% of the corpus, disagrees with 22.83%, and is silent on 37.63%. These results do not alter the

⁶Since the tagging process of the corpus employs the examples from Louw-Nida, the `pcP-lexiconLN` is not used for the purpose because the tagging obviously agrees.

Reference/Info	Verse
Ephesians 1:16	ου παυομαι ευχαριστων [υπερ υμων]μνειαν ποιουμενος επι των προσευχων μου
ὑπέρ	
(<i>hyper</i>)	<i>ou pauomai eucharistōn [yper ymōn] mneian poioumenos epi tōn proseuchōn mou</i>
Context: 89.28 ‘because of’	
Basic: <i>LSJ A.I.1</i> ‘over’	do not cease giving thanks [for you], making mention in my prayers,
SPACE/LOCATION	
2 Corinthians 12:19	παλαι δοκειτε οτι υμιν απολογουμεθα [κατεναντι θεου]εν χριστω λαλουμεν τα δε παντα αγαπητοι υπερ της υμων οικοδομης
κατέναντι	
(<i>katenanti</i>)	<i>palai dokeite oti ymin apologoumetha [katenanti theou] en christō laloumen ta de panta agapētoi yper tēs ymōn oikodomēs</i>
Context: 90.20 ‘in the judgment of’	
Basic: 83.42 ‘opposite’	
SPACE/LOCATION	
	Have you been thinking all this time that we are defending ourselves to you? We are speaking in Christ [before God], and all these things, dear friends, are for your edification.
Ephesians 1:4	καθως εξελεξατο ημας εν αυτω προ καταβολης κοσμου ειναι ημας αγιους και αμωμους [κατενωπιον αυτου]εν αγαπη
κατενώπιον	
(<i>katenōpion</i>)	<i>kathōs exelexato ēmas en autō pro katabolēs kosmou einai ēmas agiouis kai amōmous [katenōpion autou] en agapē</i>
Context: 90.20 ‘in the judgment of’	
Basic: 83.33 ‘in front of’	
SPACE/LOCATION	just as he chose us in him before the foundation of the world, that we should be holy and blameless [before him] in love,

Table 4.3: Sample examples of verses.

analysis; they are neither positive nor negative as an indicator of the validity of the tagging. They are shared in this section as a report of the attempted validation in the spirit of transparency.

4.2 Frequencies of Prepositions

The scope of analysis includes thirty prepositions which we classify here as abstract metaphors, time metaphors, and literal prepositions. This section introduces them in order to familiarize the reader with them and their classification. The findings of this study do not focus on individual prepositions, but rather the relation of image schemas to the semantic domains of their contextual and basic meaning. Being familiar with how the prepositions fall within the terrain of our exploration helps give gravity to this higher level conversation.

As can be seen in Table 4.4, abstract metaphors form the majority both in the list of preposition senses and the corpus, and time metaphors are the least frequent. The prepositions, their list frequencies, and corpus frequencies are displayed in Tables 4.5 (p. 55) and 4.6 (p. 56)⁷. The prepositions are sorted according to the frequency of abstract metaphors. Glosses for the basic (spatial/physical) meanings are included to familiarize the reader with the prepositions. Metaphoric meanings and glosses are covered in subsequent sections as needed.

Metaphoricity	List Freq.	Corpus Freq.	% List	% Corpus
Abstract Metaphors	111	2203	65.68%	76.84%
Time Metaphors	21	140	12.43%	4.88%
Literal	37	524	21.89%	18.28%
<i>Total</i>	169	2867	100.00%	100.00%

Table 4.4: Metaphoric and literal preposition instances.

⁷The corresponding percent distributions are displayed in Tables C.3 and C.4 in Appendix C.2.

Preposition	Transliteration	Gloss(es) of Basic Meaning(s)	Abstract	Time	Literal	Total
ἐπί	<i>epi</i>	at, toward, upon	13	2	5	20
ἐν	<i>en</i>	among, at, in	12	2	5	19
πρός	<i>pros</i>	against, among, at, to	11	1	3	15
ἐκ	<i>ek</i>	out of	9	1	1	11
παρά	<i>para</i>	among, at, beyond, from	9	0	2	11
εἰς	<i>eis</i>	inside, into, on, to	8	3	5	16
μετά	<i>meta</i>	among, beyond	7	1	0	8
διά	<i>dia</i>	along, through	6	2	1	9
κατά	<i>kata</i>	along, among, throughout, facing toward, opposite	5	2	2	9
ὑπέρ	<i>hyper</i>	beyond, over	5	0	0	5
περί	<i>peri</i>	around	4	0	0	4
ἀπό	<i>apo</i>	from	3	1	1	5
ὑπό	<i>hypo</i>	under	3	0	1	4
ἀντί	<i>anti</i>	opposite	3	0	0	3
ἕως	<i>heōs</i>	as far as	2	1	0	3
ἐκτός	<i>ektos</i>	outside	2	0	1	3
μέχρι	<i>mechri</i>	as far as	1	1	1	3
ὀπίσω	<i>opisō</i>	behind	1	1	0	2
ἔμπροσθεν ⁸	<i>emprosthen</i>	in front of	1	0	1	2
ἐνώπιον	<i>enōpion</i>	in front of	1	0	1	2
κατέναντι	<i>katenanti</i>	opposite	1	0	1	2
ὑπεράνω	<i>hyperanō</i>	above	1	0	1	2
χωρίς	<i>chōris</i>	separately	1	0	1	2
κατενώπιον	<i>katēnōpion</i>	in front of	1	0	0	1
μεταξύ	<i>metaxy</i>	between	1	0	0	1
ἄχρι	<i>achri</i>	as far as	0	1	1	2
ἐγγύς	<i>engys</i>	near	0	1	1	2
πρό	<i>pro</i>	in front of	0	1	0	1
ἀπέναντι	<i>apenanti</i>	opposite	0	0	1	1
ὑπερέκεινα	<i>hyperekeina</i>	beyond	0	0	1	1
<i>Total</i>			111	21	37	169

Table 4.5: Preposition usage list frequencies.

⁸Also spelled ἔμπροσθεν.

Preposition	Transliteration	Gloss(es) of Basic Meaning(s)	Abstract	Time	Literal	Total
ἐν	<i>en</i>	among, at, in	652	52	285	989
εἰς	<i>eis</i>	inside, into, on, to	319	9	72	400
διά	<i>dia</i>	along, through	274	8	7	289
κατά	<i>kata</i>	along, among, throughout, facing toward, opposite	177	2	3	182
ἐκ	<i>ek</i>	out of	160	1	36	197
ὑπέρ	<i>hyper</i>	beyond, over	99	0	0	99
πρός	<i>pros</i>	against, among, at, to	88	1	51	140
ἐπί	<i>epi</i>	at, toward, upon	84	11	33	128
ἀπό	<i>apo</i>	from	81	11	1	93
μετά	<i>meta</i>	among, beyond	70	4	0	74
ὑπό	<i>hypo</i>	under	68	0	3	71
περί	<i>peri</i>	around	52	0	0	52
παρά	<i>para</i>	among, at, beyond, from	38	0	2	40
χωρίς	<i>chōris</i>	separately	13	0	3	16
ἐνώπιον	<i>enōpion</i>	in front of	7	0	10	17
ἐκτός	<i>ektos</i>	outside	5	0	1	6
ἀντί	<i>anti</i>	opposite	5	0	0	5
ἕως	<i>heōs</i>	as far as	3	10	0	13
κατενώπιον	<i>katēnōpion</i>	in front of	2	0	0	2
μέχρι	<i>mechri</i>	as far as	1	5	2	8
ὀπίσω	<i>opisō</i>	behind	1	1	0	2
ἔμπροσθεν	<i>emprosthen</i>	in front of	1	0	6	7
κατέναντι	<i>katēnanti</i>	opposite	1	0	2	3
ὑπεράνω	<i>hyperanō</i>	above	1	0	1	2
μεταξύ	<i>metaxy</i>	between	1	0	0	1
ἄχρι	<i>achri</i>	as far as	0	13	1	14
πρό	<i>pro</i>	in front of	0	10	0	10
ἐγγύς	<i>engys</i>	near	0	2	3	5
ἀπέναντι	<i>apēnanti</i>	opposite	0	0	1	1
ὑπερέκεινα	<i>hyperekeina</i>	beyond	0	0	1	1
<i>Total</i>			2203	140	524	2867

Table 4.6: Preposition usage corpus frequencies.

When comparing the list frequencies of the three categories for each preposition, we notice that the top sixteen prepositions with respect to list frequency (from ἐπί [*epi*] to ἐκτός [*ektos*]) have more abstract metaphor uses than either time metaphoric or literal; the 24th and 25th ranked prepositions also exhibit this (κατενώπιον [*katenōpion*] and μεταξύ [*metaxy*]); these eighteen prepositions account for 86.98% of the list. The rest of the prepositions either have a single abstract usage (8.88%) or no abstract usage (4.14%) while one or both of the other two uses (time and literal) have a single instance. At the list level, we make two important observations. First, the existence of multiple metaphoric senses that outnumber literal and time metaphoric is a property exhibited by the vast majority of prepositions. Second, no preposition has more literal senses than metaphoric (abstract and time metaphoric combined). Thus, we can conclude that at the definition level, prepositions are highly metaphoric and mostly abstract metaphoric.

Of all 30 prepositions, 25 have abstract metaphoric meanings; these make up 71.75% of the corpus. Among the 25 abstract prepositions, 13 have more than two abstract meanings per basic meaning; these make up 69.41% of the corpus. In the corpus all of these prepositions exhibit a higher frequency of abstract metaphoric uses as in the list, except for ἕως (*heōs*) which has 3 abstract instances and 10 time instances. This shows that the majority of these prepositions exhibit high abstract metaphoric usage on an individual level which is consistent with the multiplicity of abstract meanings in their definitions. This also indicates that Zipf’s meaning-frequency law (Zipf, 1945), “that higher frequency words tend to be more polysemous” (Hernández-Fernández, Casas, Ferrer-i Cancho, & Baixeries, 2016), is evident among abstract prepositions in the Pauline corpus. Non-parametric correlation tests were carried out using the frequency and *1 - basic/abstract meaning ratio* for all abstract metaphors (Hernández-Fernández et al., 2016). The results indicate a positive correlation: 0.656 for Kendall’s Tau and 0.813 for Spearman’s Rho, which confirms the applicability of Zipf’s law to the prepositions in the Pauline Corpus.

4.3 Time Metaphors

Time metaphors are treated separately and covered briefly with respect to image schemas and their relationship to subdomains and relevant metaphors. This allows us to better organize the discussion and to focus on more abstract and less predictable domains (e.g., cause, agency, benefaction, etc.) which we consider to be more relevant to the content of the corpus which describes spiritual concepts, logical relations, and the nature of relationship between people and deity.

The root of time metaphors in the domain of space is a well attested fact (Lakoff & Johnson, 1980a; Bortone, 2010). Bortone documents various views about the degree to which the domains of space and time are to be considered separate. This varies from rendering them indistinguishable, to putting them under the same umbrella of “concrete” or “local”, to considering time to be a “pseudospace”.

Accordingly, our analysis considers time metaphors to form a middle level of abstraction between space and the rest of the metaphors. The results of the analysis confirm this assumption. Based on the meanings identified for the observed temporal prepositions, as well as their image schemas and related metaphors, we observe that their metaphoric usage mirrors space rather consistently. This is most evident in the high frequency of the TIME IS A LANDSCAPE WE MOVE THROUGH.

Most time metaphors are based on image schemas in the categories of SPACE (95.24% list distribution, 83.57% corpus distribution) and a minority is based on CONTAINMENT (4.76% list distribution, 16.43% corpus distribution), the latter being a constricted two- or three-dimensional space.

As a starting point, we list below the subdomains of the semantic domain for time (67 *Time*) under discussion.

- *A) A Point of Time without Reference to Other Points of Time: Time, Occasion, Ever, Often*
- *B) A Point of Time with Reference to Other Points of Time: Before, Long Ago, Now, At the Same Time, When, About, After*
- *E) Duration of Time without Reference to Points or Units of Time: Time, Spend Time, Always, Eternal, Old, Immediately, Young*
- *F) Duration of Time with Reference to Some Point of Time: Until, Delay, Still, From*
- *G) Duration of Time with Reference to Some Unit of Time: During, In, While, Throughout*
- *H) Indefinite Units of Time: Age, Lifetime, Interval, Period*

For each of the above image schemas, we list the subdomains with prepositional instances that are accounted by it. As a result of this, we see that prepositions from within the same subdomain can be accounted for by different image schemas due to the association of the image schemas with their basic meaning.

The most frequent image schema is SPACE/PATH which has the related metaphor TIME IS A LANDSCAPE WE MOVE THROUGH (61.90% of the list, 44.29% of the corpus). The prepositional senses that this image schema accounts for belong to the following subdomains of time.

- *B) A Point of Time with Reference to Other Points of Time: Before, Long Ago, Now, At the Same Time, When, About, After*
- *E) Duration of Time without Reference to Points or Units of Time: Time, Spend Time, Always, Eternal, Old, Immediately, Young*
- *F) Duration of Time with Reference to Some Point of Time: Until, Delay, Still, From*
- *G) Duration of Time with Reference to Some Unit of Time: During, In, While, Throughout*

Table 4.7 contains an example phrase for a preposition sense from each of the subdomains. Table 4.8 shows the contextual and basic meanings glosses and Louw-Nida numbers corresponding to the examples in the previous table.

Greek	Transliteration	Translation	LN	Reference
μετά ετη τρια	<i>meta etē tria</i>	‘after three years’	67.48 (B)	Galatians 1:18
εις τέλος	<i>eis telos</i>	‘to the end’	67.117 (E)	1 Thessalonians 2:16
αχρι του νυν	<i>achri tou nyn</i>	‘until now’	67.119 (F)	Romans 8:22
δια παντος	<i>dia pantos</i>	‘continually’	67.140 (G)	Romans 11:10

Table 4.7: Example phrases of SPACE/PATH and TIME IS A LANDSCAPE.

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
SPACE/PATH	μετά (<i>meta</i>)	after (time)	67.48	beyond (location)	83.56
	εις (<i>eis</i>)	for (time)	67.117	into (extension)	84.22
	αχρι (<i>achri</i>)	until	67.119	as far as	84.19
	δια (<i>dia</i>)	throughout (time)	67.140	along (extension)	84.32

Table 4.8: Example meanings of SPACE/PATH and TIME IS A LANDSCAPE.

TIME IS A LANDSCAPE WE MOVE THROUGH is also related to the SPACE/LOCATION image schema (23.81% list distribution, 30.71% corpus distribution) for preposition senses in the following subdomains:

- A) *A Point of Time without Reference to Other Points of Time: Time, Occasion, Ever, Often*
- B) *A Point of Time with Reference to Other Points of Time: Before, Long Ago, Now, At the Same Time, When, About, After*
- G) *Duration of Time with Reference to Some Unit of Time: During, In, While, Throughout*
- H) *Indefinite Units of Time: Age, Lifetime, Interval, Period*

Tables 4.9 and 4.10 contain examples of phrases and their contextual/basic meanings.

Greek	Transliteration	Translation	LN	Reference
προς ωραν	<i>pros ōran</i>	'for a time'	67.16 (A)	Philemon 15
εν ημερα σωτηριας	<i>en ēmera sōtērias</i>	'in the day of salvation'	67.33 (B)	2 Corinthians 6:2
επι των προσευχων μου	<i>epi tōn proseuchōn mou</i>	'in my prayers'	67.136 (G)	Philemon 4
εις ημεραν χριστου	<i>eis ēmeran christou</i>	'in the day of Christ'	67.160 (H)	Philippians 2:16

Table 4.9: Example phrases of SPACE/LOCATION and TIME IS A LANDSCAPE.

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
SPACE/LOCATION	πρός (<i>pros</i>)	at (time)	67.16	at (location)	83.24
	ἐν (<i>en</i>)	when (time)	67.33	at (location)	83.23
	ἐπί (<i>epi</i>)	during (time)	67.136	at (location)	83.23
	εἰς (<i>eis</i>)	at (time)	67.160	on (location)	83.47

Table 4.10: Example meanings of SPACE/LOCATION and TIME IS A LANDSCAPE.

The evidence in Tables 4.7-4.10 shows how prepositional instances from within the same subdomain can be accounted for by different image schemas. This is because the choice of image schema is based on the basic meaning of the prepositional sense. We observe this in the basic meanings of the two prepositional senses belonging to subdomain B) *A Point of Time with Reference to Other Points of Time: Before, Long Ago, Now, At the Same Time, When, About, After*. μετα (*meta*, 'after') has the basic meaning of 'beyond' which is accounted for by the PATH image schema and εν (*en*, 'in') has the basic meaning of 'at' which is accounted for by the LOCATION image schema. The PATH image schema forms a

timeline; a point in time that is temporally ‘after’ another (contextual meaning) is physically ‘beyond’ it (basic meaning) on the line representing time. On the other hand, LOCATION refers to a static position where an event and a point in time meet, thus, happening simultaneously (‘when’ vs. ‘at’). The diversity of relations within this domain (timeline vs. static point) allows for various image schemas to account for the metaphoric meanings.

The CONTAINMENT/CONTAINER image schema is only applicable to the preposition ἐν (*en*, ‘in’) when it means ‘during’ (67.136), having the related metaphor of (BOUNDED) TIME IS A CONTAINER. The basic meaning for this metaphoric sense of ἐν (*en*) is ‘in’. No other time metaphoric preposition sense has a basic meaning that is modeled or reflected in CONTAINMENT/CONTAINER⁹; this is evident in the list of remaining basic meanings: ‘along’, ‘as far as’, ‘at’, ‘behind’, ‘beyond’, ‘from’, ‘in front of’, ‘into’, ‘near’, ‘on’, ‘opposite’, ‘out of’, and ‘to’.

Other prepositions that mean *during* are based on the SPACE/PATH image schema since the start and end of the path delimit the start and end of a certain duration of time. The SPACE/FRONT-BACK image schema is related to the pair of closely associated metaphors: FUTURE IS IN FRONT, PAST IS BEHIND and FUTURE IS BEHIND, PAST IS IN FRONT. This combination of image schema and metaphor accounts for temporal uses of ὀπίσω (*opisō*) and πρό (*pro*).

Although other metaphors are cited in our analysis, TIME IS A LANDSCAPE WE MOVE THROUGH encompasses all time metaphoric prepositions and their related image schemas (SPACE/PATH, SPACE/LOCATION, CONTAINER/CONTAINMENT, SPACE/NEAR-FAR, and SPACE/FRONT-BACK). In certain instances, FUTURE IS IN FRONT, PAST IS BEHIND/FUTURE IS BEHIND, PAST IS IN FRONT and (BOUNDED) TIME IS A CONTAINER are cited instead due to their greater specificity. Conversely, it can be stated that TIME IS A LANDSCAPE WE MOVE THROUGH is a generalization of these metaphors and evidence of the mirroring of space in time.

⁹The other contextual meanings of ἐν (*en*) has the basic meaning of ‘at’ (included in Table 4.10), which does not imply containment as much as they do positioning.

4.4 Abstract Metaphors - Beyond Time

Abstract metaphors are the basis of the bulk of the analysis; their relevance is also reflected in their prevalence: 65.68% in the list and 76.84% in the corpus. Furthermore, abstract metaphors are of greater interest because (1) they involve more prepositions and more semantic domains for both contextual and basic meanings, and (2) explanations of the metaphors are less predictable than for time metaphors which exhibit a limited number of image schemas and related metaphors.

Preposition	Transliteration	Gloss(es) of Basic Meaning(s)	Contextual	Basic
ἐπί	<i>epi</i>	at, toward, upon	13	2
ἐν	<i>en</i>	among, at, in	12	2
πρός	<i>pros</i>	against, among, at, to	11	4
παρά	<i>para</i>	among, at, beyond, from	9	4
ἐκ	<i>ek</i>	out of	9	1
εἰς	<i>eis</i>	inside, into, on, to	8	2
μετά	<i>meta</i>	among, beyond	7	1
διά	<i>dia</i>	along, through	6	1
κατά	<i>kata</i>	along, among, throughout, facing toward, opposite	5	5
ὑπέρ	<i>hyper</i>	beyond, over	5	2
περί	<i>peri</i>	around	4	1
ἀπό	<i>apo</i>	from	3	1
ὑπό	<i>hypo</i>	under	3	1
ἀντί	<i>anti</i>	opposite	3	1
ἕως	<i>heōs</i>	as far as	2	1
ἐκτός	<i>ektos</i>	outside	2	1
μέχρι	<i>mechri</i>	as far as	1	1
ὀπίσω	<i>opisō</i>	behind	1	1
ἔμπροσθεν	<i>emprosthen</i>	in front of	1	1
ἐνώπιον	<i>enōpion</i>	in front of	1	1
κατέναντι	<i>katenanti</i>	opposite	1	1
ὑπεράνω	<i>hyperanō</i>	above	1	1
χωρίς	<i>chōris</i>	separately	1	1
κατενώπιον	<i>katēnōpion</i>	in front of	1	1
μεταξύ	<i>metaxy</i>	between	1	1
<i>Total</i>			111	39

Table 4.11: Contextual and basic meaning, list frequencies.

We begin with an overview of abstract prepositions that shows the results of the MIP analysis and the identified image schemas. The organization of this overview is based on the number of basic meanings in relation to the number of contextual meanings; these numbers are listed in Table 4.11.¹⁰ The numerical relation between the number of basic meanings and of contextual meanings is one-to-one, one-to-many, and many-to-many. This numeric relation is not an arbitrary means of grouping prepositions together, rather this ratio is generally indicative of the level of disambiguation involved in the analysis. On the one hand, having one metaphoric meaning and one basic meaning involves no disambiguation, in other words there is only one basic meaning from which one begin to explain the metaphoric meaning. On the other hand, having many metaphoric meanings and many basic meanings requires one to consider various meanings from which to explain the metaphoric meaning. This general heuristic allows our discussion to start with simple cases of low ambiguity and to build up to cases of higher ambiguity. First we look at the prepositions with a single basic meaning that corresponds to one metaphoric contextual meaning. Then we look at the prepositions with a single basic meaning that corresponds to more than one metaphoric contextual meanings. Finally, the prepositions with many-to-many relation are divided into those with two basic meanings and those with three or more.

¹⁰This table is sorted by the number of contextual meanings and the number of basic meanings. The number of glosses does not correspond to the number of basic meanings.

4.4.1 One Basic Meaning; One Metaphoric Meaning

Nine prepositions have a one-to-one basic to contextual meaning relation; they compose 8.11% of the list and 1.27% of the corpus. They are listed in Table 4.12.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/UP-DOWN	ὑπεράνω (<i>hyperanō</i>)	above (status)	87.31	1	above (location)	83.49
SPACE/SCALE	μέχρι (<i>mechri</i>)	to the degree that	78.51	1	as far as	84.19
SPACE/FRONT-BACK	ὀπίσω ¹¹ (<i>opisō</i>)	after [following]	36.35	1	behind	83.40
SPACE/LOCATION	μεταξύ (<i>metaxy</i>)	between (association)	89.115	1	between (location)	83.11
MULTIPLICITY/PART-WHOLE	χωρίς (<i>chōris</i>)	without	89.120	13	separately	63.31
SPACE/LOCATION	κατέναντι (<i>katēnanti</i>)	in the judgment of	90.20	1	opposite	83.42
SPACE/LOCATION	ἐμπροσθεν (<i>emprosthen</i>)	in the judgment of	90.20	1	in front of	83.33
SPACE/LOCATION	κατενώπιον (<i>katēnōpion</i>)	in the judgment of	90.20	2	in front of	83.33
SPACE/LOCATION	ἐνώπιον (<i>enōpion</i>)	in the opinion of	90.20	7	in front of	83.33

Table 4.12: Prepositions with one metaphoric meaning and one basic meaning.

¹¹This meaning is from the domain/subdomain *36 Guide, Discipline, Follow/D Follow, Be a Disciple*.

Reference/Info	Verse
2 Corinthians 12:19	παλαι δοκειτε οτι υμιν απολογουμεθα [κατεναντι θεου]εν
κατέναντι	χριστω λαλουμεν τα δε παντα αγαπητοι υπερ της υμων οικοδομης
(<i>katenanti</i>)	
Context: 90.20 'in the judgment of'	<i>palai dokeite oti ymin apologoumetha [katenanti theou]</i>
Basic: 83.42 'opposite'	<i>en christō laloumen ta de panta agapētoi yper tēs ymōn</i>
SPACE/LOCATION	<i>oikodomēs</i>
	Have you been thinking all this time that we are defending ourselves to you? We are speaking in Christ [before God], and all these things, dear friends, are for your edification.
Ephesians 1:4	καθως εξελεξατο ημας εν αυτω προ καταβολης κοσμου ειναι ημας αγιους και αμωμους [κατενωπιον αυτου]εν αγαπη
κατενώπιον	
(<i>katenōpion</i>)	
Context: 90.20 'in the judgment of'	<i>kathōs exelexato ēmas en autō pro katabolēs kosmou einai</i>
Basic: 83.33 'in front of'	<i>ēmas agious kai amōmous [katenōpion autou] en agapē</i>
SPACE/LOCATION	just as he chose us in him before the foundation of the world, that we should be holy and blameless [before him] in love,
Romans 12:17	μηδενι κακον αντι κακου αποδιδοντες προνοουμενοι καλα [ενωπιον παντων ανθρωπων]
ἐνώπιον	
(<i>enōpion</i>)	
Context: 90.20 'in the opinion of'	<i>mēdeni kakon anti kakou apodidontes pronouomenoi kala [enōpion pantōn anthrōpōn]</i>
Basic: 83.33 'in front of'	Pay back no one evil for evil. Take thought for what is good [in the sight of all people].
SPACE/LOCATION	

Table 4.13: Example verses of prepositions with metaphoric meanings related to evaluation.

There is variation in with respect to how easily one can explain the contextual meaning in comparison with the basic meaning. The connection between vertical positioning and status is easy to recognize for ὑπεράνω (*hyperanō*, ‘above’), especially in light of the commonly recognized metaphor HIGH STATUS IS UP (conceptual metaphors are covered in Section 4.8). It is also easy to make the connection between distance and degree for μέχρι (*mechri*, ‘as far as’), following leadership and following physically for ὀπίσω (*opisō*, ‘behind’), association and physical proximity for μεταξύ (*metaxy*, ‘between’), and dissociation and physical separation for χωρίς (*chōris*, ‘separately’).

The difficulties lie with κατέναντι (*katenanti*, ‘opposite’), and three prepositions meaning ‘in front of’: ἔμπροσθεν (*emprosthen*), κατενώπιον (*katenōpion*), and ἐνώπιον (*enōpion*). For these prepositions, the connection between evaluation and spatial position is not obvious because the spatial configuration of the basic meaning maps to an implied evaluator that has the object of evaluation positioned in front of it, but the action of evaluating is left to the context. In her discussion of the ancient Greek preposition ἀμφί (*amphi*), Luraghi (2003, p. 258) speaks of “causal meaning [*being*] secondarily derived ... on grounds of common knowledge about events”; such is the case here and elsewhere. Table 4.13 (p. 65) contains examples of the three contextual/basic meaning combination found among these four prepositions¹².

4.4.2 One Basic Meaning; Many Metaphoric Meanings

There are nine other prepositions that have a single basic meaning with multiple metaphoric meanings. These compose 35.14% of the list and 32.59% of the corpus. The one having the most metaphoric meanings is ἐκ (*ek*); they are derived from the basic meaning ‘out of’ (84.4); the metaphoric meanings are displayed in Table 4.14 (p. 67).

¹²ἔμπροσθεν (*emprosthen*) is not represented in the table of examples for two reasons: (1) κατενώπιον (*katenōpion*) has the same contextual and basic meanings, and more crucially (2) the only example for it is erroneously tagged in the corpus. It has *90.20* for the Louw-Nida when its translation is literal (‘in the presence of’). See Section 4.1.6 (p. 52) regarding the verification of the tagging of the *SBLGNT Interlinear*.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/PATH	$\dot{\epsilon}\chi$ (<i>ek</i>)	from (dissociation)	89.121	9	out of (extension)	84.4
		because of (reason)	89.25	26		
		by (means)	89.77	27		
		with (manner)	89.85	5		
		with (instrument)	90.12	1		
		from (source)	90.16	66		
		from (derivation)	89.3	10		
CONTAINMENT/IN-OUT		of (substance)	89.142	1		
MULTIPLICITY/PART-WHOLE		one of (part-whole)	63.20	15		

Table 4.14: Metaphoric meanings of $\dot{\epsilon}\chi$ (*ek*) and its single basic meaning.

Reference/Info	Verse
Philippians 1:17	οι δε [εκ εριθειας]τον χριστον καταγγελουσιν ουχ αγνωσ οιομενοι θλιψιν εγειρειν τοις δεσμοις μου
ἐκ (<i>ek</i>)	
<i>reason</i>	<i>oi de [ek eritheias] ton christon katangellousin ouch</i>
Context: 89.25 ‘because of’	<i>agnōs oiomenoi thlipsin egeirein tois desmois mou</i>
Basic: 84.4 ‘out of’	The former proclaim Christ [from selfish ambition], not
SPACE/PATH	sincerely, thinking to raise up affliction in my imprison-
Romans 4:2	ment. ει γαρ αβρααμ [εκ εργαων]εδικαιωθη εχει καυχημα αλλ’ ου προς θεον
ἐκ (<i>ek</i>)	
<i>means</i>	<i>ei gar abraam [ek ergōn] edikaiōthē echei kauchēma all</i>
Context: 89.77 ‘by’	<i>ou pros theon</i>
Basic: 84.4 ‘out of’	For if Abraham was justified [by works], he has some-
SPACE/PATH	thing to boast about, but not before God.
2 Corinthians 9:7	εκαστος καθως προηρηται τη καρδια μη [εκ λυπησ]η εξ αναγκης ιλαρον γαρ δοτην αγαπα ο θεος
ἐκ (<i>ek</i>)	
<i>manner</i>	<i>ekastos kathōs proērētai tē kardia mē [ek lypēs] ē ex</i>
Context: 89.85 ‘with’	<i>anankēs ilaron gar dotēn agapa o theos</i>
Basic: 84.4 ‘out of’	Each one should give as he has decided in his heart, not
SPACE/PATH	reluctantly or [from compulsion], for God loves a cheerful
	giver.
Colossians 3:23	ο εαν ποιητε [εκ ψυχης]εργαζεσθε ως τω κυριω και ουκ ανθρωποις
ἐκ (<i>ek</i>)	
<i>instrument</i>	<i>o ean poiēte [ek psychēs] ergazesthe ōs tō kyriō kai ouk</i>
Context: 90.12 ‘with’	<i>anthrōpois</i>
Basic: 84.4 ‘out of’	Whatever you do, accomplish it [from the soul], as to
SPACE/PATH	the Lord, and not to people,
1 Thessalonians 2:3	η γαρ παρακλησις ημων ουκ [εκ πλανης]ουδε εξ ακαθαρ- σιας ουδε εν δολω
ἐκ (<i>ek</i>)	
<i>source</i>	<i>ē gar paraklēsis ēmōn ouk [ek planēs] oude ex akathar-</i>
Context: 90.16 ‘from’	<i>sias oude en dolō</i>
Basic: 84.4 ‘out of’	For our exhortation is not from error or [from impurity]
SPACE/PATH	or with deceit,

Table 4.15: Example verses of ἐκ (*ek*) with meanings of *causality*.

Reference/Info	Verse
1 Timothy 1:5	το δε τελος της παραγγελιας εστιν αγαπη [εκ καθαρως καρδιας και συνειδησεως αγαθης και πιστεως ανυποκριτου]
ἐκ (<i>ek</i>)	
<i>derivation</i>	<i>to de telos tēs parangelias estin agapē</i> [ek <i>katharas kardias kai syneidēseōs agathēs kai pisteōs anypokritou</i>]
Context: 89.3 ‘from’	
Basic: 84.4 ‘out of’	But the goal of our instruction is love [from a pure heart and a good conscience and a faith without hypocrisy],
SPACE/PATH	
Philippians 3:5	περιτομη οκταημερος εκ γενους ισραηλ φυλης βενιαμιν εβραιος [εκ εβραιων]κατα νομον φαρισαιος
ἐκ (<i>ek</i>)	
<i>substance</i>	<i>peritomē oktaēmeros ek genous israēl phylēs beniamin ebraios</i> [ek <i>ebraiōn</i>] <i>kata nomon pharisaiois</i>
Context: 89.142 ‘of’	
Basic: 84.4 ‘out of’	circumcised on the eighth day, from the nation of Israel, of the tribe of Benjamin, a Hebrew born [from Hebrews],
CONTAINMENT/IN-OUT	according to the law a Pharisee,

Table 4.16: Example verses of ἐκ (*ek*) with meanings of *derivation* and *substance*.

Reference/Info	Verse
1 Corinthians 9:19	ελευθερος γαρ ων [εκ παντων]πασιν εμαυτον εδουλωσα ινα τους πλειονας κερδησω
ἐκ (<i>ek</i>)	
<i>dissociation</i>	<i>eleutheros gar ōn</i> [ek <i>pantōn</i>] <i>pasin emauton edoulōsa ina tous pleionas kerdēsō</i>
Context: 89.121 ‘from’	
Basic: 84.4 ‘out of’	For although I am free [from all people], I have enslaved myself to all, in order that I may gain more.
SPACE/PATH	
Colossians 4:9	συν ονησιμω τω πιστω και αγαπητω αδελφω ος εστιν [εκ υμων]παντα υμιν γνωρισουσιν τα ωδε
ἐκ (<i>ek</i>)	
<i>part-whole</i>	<i>syn onēsīmō tō pistō kai agapētō adelphō os estin</i> [ek <i>ymōn</i>] <i>panta ymin gnōrisousin ta ōde</i>
Context: 63.20 ‘one of’	
Basic: 84.4 ‘out of’	together with Onesimus, my faithful and dear brother, who is one [of you]. They will make known to you all the circumstances here.
MULTIPLICITY/PART-WHOLE	

Table 4.17: Example verses of ἐκ (*ek*) with meanings of *dissociation* and *part-whole*.

The meanings can be reduced to three clusters: (1) *source (of action), reason, means, manner, instrument*; (2) *derivation, substance*; and (3) *dissociation, part-whole*. Example verses for these groups are in Table 4.15 (p. 68), Table 4.17, and Table 4.16¹³. In addition to explaining how the meanings in the clusters are related, we explain the reasoning for our choices of image schema.

¹³It should be noted that the example for *substance* in Table 4.16 (p. 69) is the only instance

The first group conveys an aspect of the origin of an action or result. We place these meanings (in addition to others) under the umbrella of causality based on the following works. In her work on Greek prepositions, Luraghi (2003, p. 30) forms a grouping of causal roles consisting of Agent, Instrument, Cause, Reason, Force, Means, and/or Intermediary. Dirven (1993), in his work on abstract use of spatial metaphors in English, treats manner, means, and instrument as a single domain; thereby, adding manner to the group identified by Luraghi. Furthermore, Nikiforidou (1991) (cited by Luraghi), develops the CAUSES ARE ORIGINS (of events) metaphor based on (1) lexical and translational evidence in which cause and origin are equated, and (2) Turner’s (1987, pp. 143–148) work on parental origin as being the reason for existence¹⁴. In all cases, the cause (or causal factor) is mapped to the start point of a path and the consequence is mapped to the end point.

The other two groupings are more simply justified based on observation. The second group (*derivation* and *substance*) are interrelated ontological concepts of existence and composition. They are related in a physical sense where the process of derivation requires substance and results in substance. The third group (*dissociation* and *part-whole*) is subsumed by the concept of isolation or separation¹⁵. These two are linked together in a spatial sense in that physical isolation/separation are at least implied in both.

The SPACE/PATH image schema accounts for meanings within all three groups. The entire first group corresponds to this image schema because origin or some aspect thereof is mapped to the starting point of the image schema. Likewise, *derivation* in the second group can be mapped to origin of a given entity based on its Louw-Nida definition: “a marker of the *source* from which someone or something is physically or psychologically derived” (emphasis added). However, *substance* requires a container that holds it from which the entity can be composed. This explanation is supported in several ways. First, the Louw-Nida definition defines this meaning of ἐκ/89.142 (*ek*) as “marker of the substance ... *out of* which [something] is made”, emphasis added). Second, the physical act of making something consists of taking a substance in hand or in an instrument to make it. Third, ISCAT describes CONTAINMENT/IN-OUT as indicative of location in and movement beyond a container. Both aspects of this description are applicable to substance: substance must be delimited by a container (location in) and any entity that comes to exist apart from it must be outside of the container (movement beyond). These three pieces of evidence

tagged as such in the corpus, but the tagging is erroneous and should be *derivation* instead as confirmed by the analysis of the *Exegetical Summary Series (ESS)*; nevertheless, it is included “as-is”.

¹⁴In her work, Luraghi identifies *source* as a local semantic role that serves as the basis for metaphoric causal expressions (2003, p. 37).

¹⁵The use of the term “separation” here is not to be confused with the semantic domain of the same name.

make CONTAINMENT/IN-OUT a more specific fit than PATH, especially because *substance* and the implied process of making is mapped more directly and in accordance with the contextual meaning. In the third group, *dissociation* can be viewed as a process or a state reached thereafter. Thus, if it is construed as a process, it is mapped to the movement along the path, and if it is construed as the resulting state, it is mapped to the end point of the path. In either case, the SPACE/PATH image schema applies. Although it is possible to account for *part-whole* with the SPACE/PATH image schema, it is considered more exact to account for it with MULTIPLICITY/PART-WHOLE, the more specific image schema that mirrors the meaning.

Two of the other four prepositions with a single basic meaning are related to $\acute{\epsilon}\chi$ (*ek*): $\acute{\alpha}\pi\acute{o}$ (*apo*) and $\delta\acute{\iota}\acute{\alpha}$ (*dia*). These are related based on shared or similar meanings that are accounted for with SPACE/PATH. Their meanings are listed in Table 4.18.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/PATH	$\acute{\alpha}\pi\acute{o}$ (<i>apo</i>)	from (dissociation)	89.122	44	from (extension)	84.3
		from (source)	90.15	33		
		by (agent)	90.7	4		
	$\delta\acute{\iota}\acute{\alpha}$ (<i>dia</i>)	on account of (reason)	89.26	38	through (extension)	84.29
		through (means)	89.76	85		
		by (instrument)	90.8	44		
		by (agent)	90.4	28		
		because of (reason participant)	90.44	60		
		on behalf of (benefaction)	90.38	19		

Table 4.18: Metaphoric meanings of $\acute{\alpha}\pi\acute{o}$ (*apo*) and $\delta\acute{\iota}\acute{\alpha}$ (*dia*) and their single basic meaning.

$\acute{\alpha}\pi\acute{o}$ (*apo*) has the basic meaning of ‘from’. This further associates it with $\acute{\epsilon}\chi$ (*ek*, ‘out of’) because their basic meanings are treated as equivalent when ‘out of’ is accounted for with SPACE/PATH. $\acute{\alpha}\pi\acute{o}$ (*apo*) has three metaphoric meanings. Two of them are shared with $\acute{\epsilon}\chi$ (*ek*) (*dissociation* and *source*) and the third, *agent*, is a causal meaning.

$\delta\acute{\iota}\acute{\alpha}$ (*dia*) also has causative meanings that overlap with $\acute{\epsilon}\chi$ (*ek*) and $\acute{\alpha}\pi\acute{o}$ (*apo*), namely *reason*, *means*, *instrument* and *agent* with an additional related meaning of *reason participant*¹⁶ which can also be considered part of the causal group because it traces cause to an entity. This last meaning is exclusive to $\delta\acute{\iota}\acute{\alpha}$ (*dia*). However, the basic meaning of this preposition is ‘through’, which profiles (i.e., highlights or emphasizes) the path rather than the endpoints of the SPACE/PATH image schema. The mapping between the basic meaning and the causative meanings is articulated in the conceptual metaphor MEANS OF CHANGE IS PATH

¹⁶This Louw-Nida (1996, p. 804) semantic domain is “a marker of a participant constituting the cause or reason for an event or state—‘because of, on account of, for this reason’”.

OVER WHICH MOTION OCCURS. Put in terms of the SPACE/PATH image schema, the start point and end point represent the state of things before and after a change, respectively, and the path is the causal factor that brings about the transformation from one state to another. For our purposes, change is generalized to represent any event that is attributed to a causative factor. In other words, a causative factor is said to have brought about a result that did not exist prior to its action or intervention, which implies a change of state.

διά (*dia*) has an additional meaning that is recurrent among various prepositions¹⁷: *benefaction* (i.e., ‘for the sake of’, ‘on behalf of’, ‘for the benefit of’, ‘for’). According to Luraghi (2003) this meaning is an extension of *purpose*, which is an extension of *cause* (p. 187). In his discussion of this preposition, Robertson (1914) does not list *benefaction* as a distinct meaning even though he lists the gloss ‘for the sake of’ and cites two examples that are tagged as such in the corpus (1 Corinthians 11:9 and 2 Corinthians 4:5; listed in Table 4.19). This is another case where part of the contextual meaning does not map to the image schema. The first case identified is of a group of meanings related to evaluation (p. 66). Here also the beneficence of an action only exists in the context. It is important to point out that we are not placing a constraint on what the contextual meaning can be or on the properties of the contextual meaning, but we are only pointing out that parts of the contextual meaning cannot be grounded in or be derived from the spatial or physical aspects of the basic meaning.

Reference	Verse
1 Corinthians 11:9	και γαρ ουκ εκτισθη ανηρ [δια την γυναικα]αλλα γυνη δια τον ανδρα
	<i>kai gar ouk ektisthē anēr [dia tēn gynaika] alla gynē dia ton andra</i>
	For indeed man was not created for the sake of the woman, but woman for the sake of the man].
2 Corinthians 4:5	ου γαρ εαυτους κηρυσσομεν αλλα ιησουν χριστον κυριον εαυτους δε δουλους υμων [δια ιησουν]
	<i>ou gar eautous kēryssomen alla iēsoun christon kyrion eautous de doulous ymōn [dia iēsoun]</i>
	For we do not proclaim ourselves, but Christ Jesus as Lord, and ourselves as your slaves for the sake of Jesus].

Table 4.19: Examples of *benefaction* meaning of διά (*dia*).

As we observe SPACE/PATH in διά (*dia*), ἐκ (*ek*) and ἀπό (*apo*), we see that an image schema is not only the basis of multiple metaphoric meanings, it can

¹⁷μετά (*meta*), περί (*peri*), ὑπέρ (*hyper*), εἰς (*eis*), and ἐπί (*epi*).

account for metaphoric meanings in different ways depending on the contextual meaning of the preposition. Tables 4.20-4.23 contain examples of shared meaning between pairs of prepositions among these three. It should be noted that no meaning is shared by all three prepositions.

Reference/Info	Verse
2 Corinthians 1:19	<p>ο του θεου γαρ υιος ιησους χριστος ο εν υμιν [δια ημων]κηρυχθεις δι' εμου και σιλουανου και τιμοθεου ουκ εγενετο ναι και ου αλλα ναι εν αυτω γεγονεν</p> <p><i>o tou theou gar uios iēsous christos o en ymin [dia ēmōn] kērychtheis dī emou kai silouanou kai timotheou ouk egeneto nai kai ou alla nai en autō gegonen</i></p> <p>For the Son of God, Jesus Christ, the one who was proclaimed among you by us, [by me and Silvanus and Timothy], did not become “yes” and “no,” but has become “yes” in him.</p>
διά (<i>dia</i>)	
<i>agent</i>	
Context: 90.4 ‘by’	
Basic: 84.29 ‘through’ SPACE/PATH	
2 Corinthians 7:13	<p>δια τουτο παρακεκλημεθα επι δε τη παρακλησει ημων περισσοτερωσ μαλλον εχαρημεν επι τη χαρα τιτου οτι αναπεπαυται το πνευμα αυτου [απο παντων υμων]</p> <p><i>dia touto parakeklēmetha epi de tē paraklēsei ēmōn perissoterōs mallon echarēmen epi tē chara titou oti anapepautai to pneuma autou [apo pantōn ymōn]</i></p> <p>Because of this we have been encouraged, and in addition to our encouragement, we rejoiced much more over the joy of Titus, because his spirit had been refreshed [by all of you].</p>
ἀπό (<i>apo</i>)	
<i>agent</i>	
Context: 90.7 ‘by’	
Basic: 84.3 ‘from’ SPACE/PATH	

Table 4.20: Example verses of meaning of *agent*, shared between διά (*dia*) and ἀπό (*apo*).

Reference/Info	Verse
2 Corinthians 3:5	ουχ οτι αφ' εαυτων ικανοι εσμεν λογισασθαι τι ως
ἐκ (<i>ek</i>)	[εκ αυτων] αλλ' η ικανοτης ημων εκ του θεου
<i>source</i>	<i>ouch oti aph' eautōn ikanoi esmen logisasthai ti ōs</i>
Context: 90.16 'from'	[ek autōn] <i>all ē ikanotēs ēmōn ek tou theou</i>
Basic: 84.4 'out of'	Not that we are adequate in ourselves to consider any-
SPACE/PATH	thing as [from ourselves], but our adequacy from God,
2 Corinthians 1:2	χαρις υμιν και ειρηνη [απο θεου πατρος ημων και κυριου
ἀπό (<i>apo</i>)	ιησου χριστου]
<i>source</i>	<i>charis ymin kai eirēnē [apo theou patros ēmōn kai kyriou</i>
Context: 90.15 'from'	<i>iēsou christou]</i>
Basic: 84.3 'from'	Grace to you and peace [from God our Father and the
SPACE/PATH	Lord Jesus Christ].

Table 4.21: Example verses of meaning of *source*, shared between ἐκ (*ek*) and ἀπό (*apo*).

Reference/Info	Verse
Romans 5:1	δικαιωθεντες ουν [εκ πιστεως] ειρηνην εχομεν προς τον θε-
ἐκ (<i>ek</i>)	ον δια του κυριου ημων ιησου χριστου
<i>means</i>	<i>dikaiōthentes oun [ek pisteōs] eirēnēn echomen pros ton</i>
Context: 89.77 'by'	<i>theon dia tou kyriou ēmōn iēsou christou</i>
Basic: 84.4 'out of'	Therefore, because we have been declared righteous [by
SPACE/PATH	faith], we have peace with God through our Lord Jesus
	Christ,
Ephesians 2:8	τη γαρ χαριτι εστε σεσωσμενοι [δια πιστεως] και τουτο ουκ
διά (<i>dia</i>)	εξ υμων θεου το δωρον
<i>means</i>	<i>tē gar chariti este sesōsmenoi [dia pisteōs] kai touto ouk</i>
Context: 89.76 'through'	<i>ex ymōn theou to dōron</i>
Basic: 84.29 'through'	For by grace you are saved [through faith], and this is
SPACE/PATH	not from yourselves, it is the gift of God;

Table 4.22: Example verses of meaning of *means*, shared between ἐκ (*ek*) and διά (*dia*).

Reference/Info	Verse
2 Corinthians 13:4	και γαρ εσταυρωθη [εκ ασθενειας]αλλα ζη εκ δυναμεως θεου και γαρ ημεις ασθενουμεν εν αυτω αλλα ζησομεν συν αυτω εκ δυναμεως θεου εις υμας
ἐκ (<i>ek</i>)	
<i>reason</i>	
Context: 89.25 ‘because of’	<i>kai gar estaurōthē [ek astheneias] alla zē ek dynamēōs theou kai gar ēmeis asthenoumen en autō alla zēsomen syn autō ek dynamēōs theou eis ymas</i>
Basic: 84.4 ‘out of’	
SPACE/PATH	
	For indeed, he was crucified [because of weakness], but he lives because of the power of God. For we also are weak in him, but we will live together with him because of the power of God toward you.
Ephesians 4:18	εσκοτωμενοι τη διανοια οντες απηλλοτριωμενοι της ζωης του θεου δια την αγνοιαν την ουσαν εν αυτοις [δια την πωρωσιν της καρδιας αυτων]
διά (<i>dia</i>)	
<i>reason</i>	
Context: 89.26 ‘on account of’	<i>eskotōmenoi tē dianoia ontes apēllotriōmenoi tēs zōēs tou theou dia tēn agnoian tēn ousan en autois [dia tēn pōrōsin tēs kardias autōn]</i>
Basic: 84.29 ‘through’	
SPACE/PATH	
	being darkened in understanding, alienated from the life of God, because of the ignorance that is in them, [because of the hardness of their heart],

Table 4.23: Example verses of meaning of *reason*, shared between ἐκ (*ek*) and διά (*dia*).

The remaining prepositions that have a single basic meaning are less dominated by causative metaphoric meanings and have distinct basic meanings that are reflected in distinct metaphoric meanings.

περί (*peri*) has the basic meaning of ‘around’ (83.18) which refers to position or a series of positions, but not to motion. It has four metaphoric meanings (Table 4.24). The three metaphoric meanings accounted for with SPACE/LOCATION are closely related. *Specification* and *content* fall under the semantic role of *Area*, which is an abstract notion denoting topic. In other words, *Area* denotes an abstract space in which *content* resides and one can point to such a space for *specification* of a subject. The connection between these two meanings and the notion of location is also attested to in the SUBJECTS ARE AREAS metaphor. Both Dirven (1995, p. 113-114) and Luraghi (2003, pp. 258, 269-270) observe that *Area* can be extended to *cause/reason* in the sense that a subject refers to causes consisting of actions, words, or circumstances. For example, they both cite fighting as an action that can be construed as centering around a topic (or mental space) or that as triggered/caused by it. This extension from *Area* to *cause/reason* is based on the nature of the action taking place, but it is not without ambiguity. This kind of ambiguity is in the two instances where περί (*peri*) is tagged as *reason* (90.36) which are both related to thanking (see Table 4.25

for examples). One can make the argument that the meaning of cause is, to use Luraghi’s language, “secondarily derived based on common knowledge”, and can be tagged as *content* (i.e., thanking *about* instead of thanking *because of*). The fourth meaning, *benefaction*, positions the beneficiary as the central target of the action (Luraghi, 2003, pp. 271-272).

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	περί (<i>peri</i>)	because (reason)	89.36	2	around (location)	83.18
		with regard to (specification)	89.6	27		
		about (content)	90.24	15		
SPACE/CENTER-PERIPHERY		on behalf of (benefaction)	90.39	8		

Table 4.24: Metaphoric meanings of περί (*peri*) and its single basic meaning.

Reference	Verse
1 Thessalonians 1:2	ευχαριστουμεν τω θεω παντοτε [περι παντων υμων]μνειαν ποιουμενοι επι των προσευχων ημων αδιαλειπτως
	<i>eucharistoumen tō theō pantote [peri pantōn ymōn] mneian poioumenoi epi tōn proseuchōn ēmōn adialeiptōs</i>
	We give thanks to God always [concerning all of you], making mention constantly in our prayers,
2 Thessalonians 2:13	ημεις δε οφειλομεν ευχαριστην τω θεω παντοτε [περι υμων]αδελφοι ηγαπημενοι υπο κυριου οτι ειλατο υμας ο θεος απαρχην εις σωτηριαν εν αγιασμω πνευματος και πιστει αληθειας
	<i>ēmeis de ophailomen eucharistein tō theō pantote [peri ymōn] adelphoi ēgapēmenoi ypo kyriou oti eilato ymas o theos aparchēn eis sōtērian en agiasmō pneumatōs kai pistei alētheias</i>
	But we ought to give thanks to God always [concerning you], brothers dearly loved by the Lord, because God has chosen you as first fruits for salvation by the sanctification of the Spirit and faith in the truth,

Table 4.25: Example verses of περί (*peri*) 89.36 (*reason*).

The basic meaning of *ὑπό* (*hypo*) is ‘under’, which encodes the three metaphoric meanings similarly as cases of the metaphor CONTROL IS UP. The distinct metaphoric meaning is *control*, which is directly attested to by the metaphor CONTROL IS UP. This meaning of control is implicit in the causal meanings; *reason* and *agent* are in a position of control that affects an outcome or that results in an action. The meanings and their respective examples are in Tables 4.26 and 4.27.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/UP-DOWN	<i>ὑπό</i> (<i>hypo</i>)	under (control)	37.7	21	under (location)	83.51
		because of (reason)	89.26	5		
		by (agent)	90.1	42		

Table 4.26: Metaphoric meanings of *ὑπό* (*hypo*) and its single basic meaning.

Reference/Info	Verse
Romans 6:14	αμαρτια γαρ υμων ου κυριευσει, ου γαρ εστε [υπο νομον]αλλα [υπο χαριν].
<i>ὑπό</i> (<i>hypo</i>)	
<i>control</i>	<i>amartia gar ymōn ou kyrieusei, ou gar este [ypo nomon] alla ypo charin.</i>
Context: 37.7 ‘under’	
Basic: 83.51 ‘under’	For sin will not be master over you, because you are not under law, but [under grace].
SPACE/UP-DOWN	
Colossians 2:18	μηδεις υμας καταβραβευετω θελων εν ταπεινοφροσυνη και θρησκεια των αγγελων α εορακεν εμβατευων εικη φυσιοιμενος [υπο του νοος της σαρκος αυτου]
<i>ὑπό</i> (<i>hypo</i>)	
<i>reason</i>	
Context: 89.26 ‘because of’	<i>mēdeis ymas katabrabeuetō thelōn en tapeinophrosynē kai thrēskeia tōn angelōn a eoraken embateuōn eikē physioumenos [ypo tou noos tēs sarkos autou]</i>
Basic: 83.51 ‘under’	
SPACE/UP-DOWN	Let no one condemn you, taking pleasure in humility and the worship of angels, going into detail about the things which he has seen, inflated without cause [by his fleshly mind],
1 Corinthians 4:3	εμοι δε εις ελαχιστον εστιν ινα [υπο υμων]ανακριθω η υπο ανθρωπινης ημερας αλλ’ ουδε εμαυτον ανακρινω
<i>ὑπό</i> (<i>hypo</i>)	
<i>agent</i>	<i>emoi de eis elachiston estin ina [ypo ymōn] anakrithō ē ypo anthrōpinēs ēmeras all oude emauton anakrinō</i>
Context: 90.1 ‘by’	
Basic: 83.51 ‘under’	But to me it is a very little matter that I be judged [by you] or by a human court, but I do not even judge myself.
SPACE/UP-DOWN	

Table 4.27: Example verses of *ὑπό* (*hypo*).

μετά (*meta*) has the basic meaning of ‘among’ (83.9); the metaphoric meanings are listed in Table 4.28. ‘With’ exists as a primary or secondary gloss for all the metaphoric meanings. The first five meanings in the list apply ‘with’ to a different context in a straight forward manner. The last two meanings (*benefaction* and *opposition*) are determined by the context. Although ‘with’ is not the primary gloss for *opposition*, it is used to translate the only instances of this meaning in the corpus (Table 4.29, p. 79). This shows how much context plays a role in the metaphoric meanings, and the need to identify the aspects of the metaphoric meaning that can be traced to the basic meaning and those that cannot be. Per the example, going to court and having a lawsuit are inherently an act of opposition, thus the preposition can be tagged with a more neutral meaning such as *association* or *experiencer*.

μετά (*meta*) represents *benefaction* in a manner that is not an extension of causality. According to Luraghi (2003, p. 325) the basic meaning of ‘on the side of’ encodes *benefaction* for πρός (*pros*) based on the notion that standing next to someone is a symbol of solidarity. The basic meaning of ‘among’ is close to ‘on the side of’ and also has ‘with’ as a secondary gloss in its Louw-Nida definitions. Thus, it has the meaning that is the basis of solidarity which extends to *benefaction*.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	μετά (<i>meta</i>)	with (association)	89.108	49	among (location)	83.9
		with (accompanying object) ¹⁸	89.109	2		
		with (combinative)	89.123	2		
		with (attendant circumstances)	89.79	11		
		with (experiencer)	90.60	3		
		with (benefaction)	90.42	1		
		against (opposition)	90.32	2		

Table 4.28: Metaphoric meanings of μετά (*meta*) and its single basic meaning.

¹⁸The two instances tagged with this meaning are not tagged correctly. Neither preposition takes an object and one is given a different tagging in *ESS*.

Reference	Verse
1 Corinthians 6:6	αλλα αδελφος [μετα αδελφου]κρινεται και τουτο επι απιστων
	<i>alla adelphos [meta adelphou] krinetai kai touto epi apistōn</i>
	But brother goes to court [with brother], and this before unbelievers!
1 Corinthians 6:7	ηδη μεν ουν ολωσ ηττημα υμιν εστιν οτι κριματα εχετε [μετα εαυτων]δια τι ουχι μαλλον αδικεισθε δια τι ουχι μαλλον αποστερεισθε
	<i>ēdē men oun olōs ēttēma ymin estin oti krimata echete [meta eautōn] dia ti ouchi mallon adikeisthe dia ti ouchi mallon apostereisthe</i>
	Therefore it is already completely a loss for you that you have lawsuits [with one another]. Why not rather be wronged? Why not rather be defrauded?

Table 4.29: Example verses of μετά (*meta*) 90.32 (*opposition*).

ἀντί (*anti*) is the only preposition with a single basic meaning that has multiple meanings that are each accounted for by a different image schema (Table 4.30). The basic meaning is ‘opposite’ with the implication that two objects face each other; this meaning for the preposition is not found in the New Testament. The contextual meaning ‘in place of’ (57.145) implies that two objects opposite of one another are equivalent and can be exchanged (Robertson, 1914, p. 572), hence the MULTIPLICITY/MATCHING image schema is cited. This is a meaning that cannot be fully mapped onto physical space, but requires additional inferences. Similarly, the causal meaning (‘for this reason’) is based on the implication that two objects opposite of each other correspond to one another. Thus, a cause corresponds to an effect; this is accounted for with the MULTIPLICITY/LINKAGE image schema. LINKAGE is chosen instead of MATCHING because it represents the cause-effect relation more explicitly. The meaning of ‘on behalf of’ (*benefaction*) could be explained as an extension of *reason* (i.e., because of the object of the benefit) or as an extension of ‘in the place of’ (i.e., absorbing pain or suffering in the place of another); this ambiguity explains why Robertson does not identify *benefaction* as a meaning for this preposition. Based on the ambiguity, SPACE/LOCATION is cited as a general account for the metaphor, where the location (or position) of one object opposite another maps to benefaction.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LSJ
MULTIPLICITY/MATCHING	ἀντί (<i>anti</i>)	in place of [<i>exchange</i>]	57.145	2	opposite	LSJ A.1
MULTIPLICITY/LINKAGE		for this reason [<i>reason</i>]	89.24	2		
SPACE/LOCATION		on behalf of [<i>benefaction</i>] ¹⁹	90.37	1		

Table 4.30: Metaphoric meanings of ἀντί (*anti*) and its single basic meaning.

The last two prepositions with a single basic meaning consist of straight forward physical to metaphoric mappings accounted for with a single image schema in each case. ἐκτός (*ektos*) has the basic meaning of ‘outside’ which yields two closely related metaphoric meanings of exclusion and independence (Table 4.31). The static case of the CONTAINMENT/IN-OUT image schema accounts for both meanings. The two metaphoric meanings of ἕως (*heōs*) are a result of mapping distance to quantity and degree (Table 4.32), which is clearly accounted for with the SPACE/SCALE image schema.

¹⁹The only instance tagged with this meaning is not valid. It is tagged in *ESS* as *exchange* or *reason*.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
CONTAINMENT/IN-OUT	ἐκτός (<i>ektos</i>)	independent of [<i>dissociation</i>]	89.121	1	outside	83.20
		except [<i>contrast</i>]	89.138	4		

Table 4.31: Metaphoric meanings of ἐκτός (*ektos*) and its single basic meaning.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/SCALE	ἕως (<i>heōs</i>)	as much as [<i>quantity</i>]	59.21	1	as far as	84.19
		to the point of [<i>degree</i>]	78.51	2		

Table 4.32: Metaphoric meanings of ἕως (*heōs*) and its single basic meaning.

4.4.3 Many Basic Meanings; Many Metaphoric Meanings

Four prepositions have two basic meanings: ἐν (*en*), εἰς (*eis*), ὑπέρ (*hyper*), and ἐπί (*epi*). However, in all four cases, there is a basic meaning that is far more frequent than the other. These prepositions compose 34.23% of the list and 52.38% of the corpus.

In the case of ἐν (*en*) 11 of the 12 metaphoric meanings have the familiar basic meaning of ‘in’ (Table 4.33). Table 4.34 (p. 83) contains prepositional phrases for each meaning. Only one metaphoric meaning has the basic meaning of ‘among’ (83.9, which is in the same subdomain as the other basic meaning (83.13): *83 Spacial Positions/C Among, Between, In, Inside*). This basic meaning is more appropriate because the contextual meaning refers to circumstances that occur in parallel. In two instances, SPACE/LOCATION is chosen as the image schema instead of CONTAINMENT/CONTAINER because other prepositions convey the same meaning with a more general meaning and image schema. *Attendant circumstances* is conveyed by μετά (*meta*, ‘with’ based on ‘among’) and *state* is based on the more general metaphor of STATES ARE LOCATIONS which involves the more general locative preposition ‘at’. The choice of SPACE/LOCATION and the choice of generalized image schemas over specific ones is further discussed in Section 4.7.1 (p. 115).

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	ἐν (<i>en</i>)	with (attendant circumstances)	89.80	37	among (location)	83.9
		in (state)	13.8	31		
because (reason)		89.26	26	in (location)	83.13	
by (means)		89.76	23			
with (manner)		89.84	118			
with (instrument)		90.10	73			
by (agent)		90.6	39			
by (guarantor)		90.30	1			
in union with (association)		89.119	142			
of (substance)		89.141	5			
with regard to (specification)		89.5	151			
to (experiencer)		90.56	8			

Table 4.33: Metaphoric meanings of ἐν (*en*) and its two basic meanings.

ἐν (*en*) shares many common meanings with the other prepositions with a wide range of causal meanings. ἐν (*en*) has in common with ἐκ (*ek*) and διὰ (*dia*) three causal meanings: *reason*, *means*, and *instrument*. It also has two additional causal meanings, each of which exists in one and not the other: *manner*, which exists for ἐκ (*ek*) and not διὰ (*dia*), and *agent*, which exists for διὰ (*dia*) and not ἐκ (*ek*). This shows that the image schema of CONTAINER/CONTAINMENT enables ἐν (*en*) to account for more causal meanings than SPACE/PATH allows ἐκ (*ek*) and διὰ (*dia*). CONTAINER/CONTAINMENT allows causal meanings to be represented with the more general idea of constraining a result to a causal factor.

Meaning	Greek	Transliteration	Translation	LN	Reference
with (attendant circumstances)	ἐν τοῦτοις πασιν	<i>en toutois pasin</i>	'in all these things'	89.80	Romans 8:37
in (state)	ἐν κακία καὶ φθόνῳ	<i>en kakia kai phthonō</i>	'in wickedness and envy'	13.8	Titus 3:3
because (reason)	ἐν ἐμοί	<i>en emoi</i>	'because of me'	89.26	Galatians 1:24
by (means)	ἐν τῇ σὴ γνώσει	<i>en tē sē gnōsei</i>	'by your knowledge'	89.76	1 Corinthians 8:11
with (manner)	ἐν δυνάμει	<i>en dynamei</i>	'in power'	89.84	Romans 1:4
with (instrument)	ἐν τῷ στόματι σου	<i>en tō stomati sou</i>	'in your heart'	90.10	Romans 10:9
by (agent)	ἐν πνεύματι	<i>en pneumati</i>	'by the Spirit'	90.6	Ephesians 3:5
by (guarantor)	ἐν πνεύματι ἁγίῳ	<i>en pneumati agiō</i>	'in the Holy Spirit'	90.30	Romans 9:1
in union with (association)	ἐν χριστῷ ἠσοῦ	<i>en christō iēsou</i>	'in Christ Jesus'	89.119	Philemon 23
of (substance)	ἐν δογμασιν	<i>en dogmasin</i>	'in ordinances'	89.141	Ephesians 2:15
with regard to (specification)	ἐν τούτῳ	<i>en toutō</i>	'in this matter'	89.5	2 Corinthians 8:10
to (experiencer)	ἐν τοῖς ἔθνεσιν	<i>en en tois ethnesin</i>	'among the Gentiles'	90.56	Galatians 1:16

Table 4.34: Example phrases of ἐν (*en*).

Similarly, εἰς (*eis*) has a dominant basic meaning in the list and the corpus; 'to' (84.16) is the basic meaning of 8 of the 9 metaphoric meanings (Table 4.35). One metaphoric meaning has 'inside' as a basic meaning (83.13), which is the same as the main metaphoric meaning of ἐν (*en*). εἰς (*eis*) gets this meaning from one of its other basic meanings, 'into', as a result of focusing on the final static state of 'into', which is 'in'. In other words, when an object goes 'into' a container, at the end of that action it is 'inside' it (static/position) rather than 'into' it (dynamic/motion). The meanings of *purpose*, *result*, and *change of state* share in common the notion of arrival to a state; in *purpose* it is intended, in *result* it is reached, and in *change of state* there is a contrast between the end and start state. These three meanings (examples in Table 4.36) have corresponding metaphors from the EVENT STRUCTURE metaphor; *result* and *change of state* are accounted for with CHANGE IS MOTION while PURPOSES ARE DESTINATIONS accounts for *purpose*. *Experiencer* and *benefaction* (examples in Table 4.37, p. 85) fall under the semantic role of *Recipient* (Luraghi, 2003, p. 116-117). *Content* is also accounted for with the metaphor SUBJECTS ARE AREAS as with περί (*peri*), except that the area is pointed to rather than being surrounded. The meanings of *degree* and *means* found in εἰς (*eis*) are accounted for in the same manner as they are in ἕως (*heōs*) and ἐν (*en*), respectively.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/PATH	εἰς (<i>eis</i>)	in order to (purpose)	89.57	99	to (extension)	84.16
		so that (result)	89.48	36		
		to (change of state)	13.62	38		
		on behalf of (benefaction)	90.41	26		
		to (experiencer)	90.59	38		
		with reference to (content)	90.23	69		
SPACE/SCALE		to the point of (degree)	78.51	9		
CONTAINMENT/CONTAINER		by (means)	89.76	4	inside (location)	83.13

Table 4.35: Metaphoric meanings of εἰς (*eis*) and its two basic meanings.

Reference	Verse
Romans 15:7	διο προσλαμβανεσθε αλληλους καθως και ο χριστος προσελαβετο υμας [εἰς δοξαν του θεου]
εἰς (<i>eis</i>)	
<i>purpose</i>	<i>dio proslambanesthe allēlous kathōs kai o christos prose-labeto ymas [eis doxan tou theou]</i>
Context: 89.57 ‘in order to’	
Basic: 84.16 ‘to’	Therefore accept one another, just as Christ also has accepted you, [to the glory of God].
SPACE/PATH	
2 Timothy 2:25	εν πραυτητι παιδευοντα τους αντιδιατιθεμενους μηποτε δωη αυτοις ο θεος μετανοιαν [εἰς επιγνωσιν αληθειας]
εἰς (<i>eis</i>)	
<i>result</i>	<i>en prautēti paideuonta tous antidiatithemenous mēpote dōē autois o theos metanoian [eis epignōsin alētheias]</i>
Context: 89.48 “so that”	
Basic: 84.16 “to”	correcting those who are opposed with gentleness, seeing whether perhaps God may grant them repentance [to a knowledge of the truth],
SPACE/PATH	
1 Timothy 1:6	ων τινες αστοχησαντες εξετραπησαν [εἰς ματαιολογιαν]
εἰς (<i>eis</i>)	
<i>change of state</i>	<i>ōn tines astochēsantes exetrapēsan [eis mataiologian]</i>
Context: 13.62 ‘to’	
Basic: 84.16 ‘to’	from which some have deviated, and have turned away [into fruitless discussion],
SPACE/PATH	

Table 4.36: Example verses of *purpose*, *result*, and *change of state* meanings of εἰς (*eis*).

Reference	Verse
Romans 15:26	ευδοκησαν γαρ μακεδονια και αχαια κοινωνιαν τινα ποιη- σασθαι [εις τους πτωχους των αγιων]των εν ιερουσαλημ
εις (<i>eis</i>)	
<i>benefaction</i>	<i>eudokēsan gar makedonia kai achaia koinōnian tina</i>
Context: 90.41 ‘on behalf of’	<i>poiēsasthai [eis tous ptōchous tōn agiōn] tōn en ier-</i>
Basic: 84.16 ‘to’	<i>ousalēm</i>
SPACE/PATH	For Macedonia and Achaia were pleased to make some contribution [for the poor among the saints] in Jerusalem.
Romans 8:18	λογιζομαι γαρ οτι ουκ αξια τα παθηματα του νυν καιρου προς την μελλουσαν δοξαν αποκαλυφθηναι [εις ημας]
εις (<i>eis</i>)	
<i>experiencer</i>	<i>logizomai gar oti ouk axia ta pathēmata tou nyn kairou</i>
Context: 90.59 ‘to’	<i>pros tēn mellousan doxan apokalyphthēnai [eis ēmas]</i>
Basic: 84.16 ‘to’	For I consider that the sufferings of the present time are not worthy to be compared with the glory that is about to be revealed [to us].
SPACE/PATH	

Table 4.37: Example verses of *benefaction* and *experiencer* meanings of εις (*eis*).

ὑπέρ (*hyper*) has four senses with the basic meaning of ‘over’ (*LSJ A.I.1*) and one with ‘beyond’ (*LSJ B.I*). Neither of these basic meanings, as by the definition references, are listed in Louw-Nida, which indicates that the metaphoric meaning is based on a historically older physical meaning. It shares the meanings of *benefaction*, *content*, and *reason* with περί (*peri*), which are also explained via the *Area* semantic role (Luraghi, 2003, p. 216-217, 221). Examples of these common meanings are in Tables 4.39, 4.40, and 4.41. In these cases, the position of ‘over’ delimits the area which represents the mental space containing the *content* (or topic) which extends into *reason* by virtue of the topic motivating a given action, which extends into *benefaction* when the reason is the advantage or benefit of a given target. However, *benefaction* can also be explained as physically covering (Luraghi, 2003, p. 220) the beneficiary, which extends to substituting for the beneficiary; this meaning also exists in a horizontal orientation for the preposition πρό (*pro*), which is not part of the Pauline Corpus. The extension of the ‘over’ meaning to *status* is accounted for in the same manner as it is for ὑπεράνω (*hyperanō*), via the metaphor HIGH STATUS IS UP. Finally, motion relative to position forms the metaphoric meaning of *degree* via the SPACE/SCALE image schema. This is also observed in εις (*eis*) and ἕως (*heōs*), but in the case of ὑπέρ (*hyper*) the trajector exceeds the landmark instead of reaching it.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LSJ
SPACE/SCALE	ὑπέρ (<i>hyper</i>)	beyond (degree)	78.29	7	beyond	LSJ B.I
SPACE/UP-DOWN		above (status)	87.30	3	over	LSJ A.I.1
SPACE/LOCATION		about (content)	90.24	16		
		because of (reason)	89.28	11		
		on behalf of (benefaction)	90.36	62		

Table 4.38: Metaphoric meanings of ὑπέρ (*hyper*) and its two basic meanings.

Reference/Info	Verse
2 Corinthians 8:24	<p>την ουν ενδειξιν της αγαπης υμων και ημων καυχησης [ὑπερ υμων]εις αυτους ενδεικνυμενοι εις προσωπον των εκκλησιων</p> <p><i>tēn oun endeixin tēs agapēs ymōn kai ēmōn kauchēseōs [yper ymōn] eis autous endeiknymenoi eis prosōpon tōn ekklesiōn</i></p> <p>Therefore show to them the proof of your love and our boasting [about you] openly before the churches.</p>
ὑπέρ (<i>hyper</i>)	
<i>reason</i>	
Context: 89.28 ‘because of’	
Basic: LSJ A.I.1 ‘over’	
SPACE/LOCATION	<p>ημεις δε οφειλομεν ευχαριστειν τω θεω παντοτε [περι υμων]αδελφοι ηγαπημενοι υπο κυριου οτι ειλατο υμας ο θεος απαρχην εις σωτηριαν εν αγιασμω πνευματος και πιστει αληθειας</p> <p><i>ēmeis de ophelomen eucharistein tō theō pantote [peri ymōn] adelphoi ēgapēmenoi ypo kyriou oti eilato ymas o theos aparchēn eis sōtērian en agiasmō pneumatōs kai pistei alētheias</i></p> <p>But we ought to give thanks to God always [concerning you], brothers dearly loved by the Lord, because God has chosen you as first fruits for salvation by the sanctification of the Spirit and faith in the truth,</p>
2 Thessalonians 2:13	
περί (<i>peri</i>)	
<i>reason</i>	
Context: 89.36 ‘because’	
Basic: 83.18 ‘around’	
SPACE/LOCATION	

Table 4.39: Example verses of *reason* meanings in ὑπέρ (*hyper*) and περί (*peri*).

Reference/Info	Verse
2 Corinthians 7:14	<p>οτι ει τι αυτω [υπερ υμων]κεκαυχημαι ου κατησχυνθην αλλ'ως παντα εν αληθεια ελαλησαμεν υμιν ουτως και η καυχησις ημων η επι τιτου αληθεια εγενηθη</p> <p><i>oti ei ti autō [yper ymōn] kekauchēmai ou katēschyntēn all'ōs panta en alētheia elalēsamen ymin outōs kai ē kauchēsis ēmōn ē epi titou alētheia egenēthē</i></p> <p>For if I have boasted anything to him [about you], I have not been put to shame, but as I have spoken everything to you in truth, thus also our boasting to Titus has proven to</p>
ὑπέρ (<i>hyper</i>)	
<i>content</i>	
Context: 90.24 'about'	
Basic: LSJ A.I.1 'over' SPACE/LOCATION	
1 Corinthians 1:11	<p>be true. εδηλωθη γαρ μοι [περι υμων]αδελφοι μου υπο των χλοης οτι εριδες εν υμιν εισιν</p> <p><i>edēlōthē gar moi [peri ymōn] adelphoi mou ypo tōn chloēs oti erides en ymin eisin</i></p> <p>For it has been made clear to me [concerning you], my brothers, by Chloe's people, that there are quarrels among you.</p>
περί (<i>peri</i>)	
<i>content</i>	
Context: 90.24 'about'	
Basic: 83.18 'around' SPACE/LOCATION	

Table 4.40: Example verses of *content* meanings in ὑπέρ (*hyper*) and περί (*peri*).

Reference/Info	Verse
2 Corinthians 9:14	<p>και αυτων δεησει [υπερ υμων]επιποθουντων υμας δια την υπερβαλλουσαν χαριν του θεου εφ' υμιν</p> <p><i>kai autōn deēsei [yper ymōn] epipothountōn ymas dia tēn yperballousan charin tou theou eph' ymin</i></p> <p>and they are longing for you in their prayers [for you], because of the surpassing grace of God to you.</p>
ὑπέρ (<i>hyper</i>)	
<i>benefaction</i>	
Context: 90.36 'on behalf of'	
Basic: LSJ A.I.1 'over' SPACE/LOCATION	
Colossians 1:3	<p>ευχαριστουμεν τω θεω πατρι του κυριου ημων ιησου χριστου παντοτε [περι υμων]προσευχομενοι</p> <p><i>eucharistoumen tō theō patri tou kyriou ēmōn iēsou christou pantote [peri ymōn] proseuchomenoi</i></p> <p>We give thanks always to God the Father of our Lord Jesus Christ when we pray [for you],</p>
περί (<i>peri</i>)	
<i>benefaction</i>	
Context: 90.39 'on behalf of'	
Basic: 83.18 'around' SPACE/CENTER-PERIPHERY	

Table 4.41: Example verses of *benefaction* meanings in ὑπέρ (*hyper*) and περί (*peri*).

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	ἐπί (<i>epi</i>)	concerning (<i>content</i>)	90.23	14	upon (<i>location</i>)	83.46
		because of (<i>reason</i>)	89.27	25		
		by (<i>instrument</i>)	90.9	1		
		by (<i>agent</i>)	90.5	2		
		upon (<i>responsibility</i>)	90.17	1		
SPACE/UP-DOWN		in view of (<i>basis</i>)	89.13	3	toward (<i>extension</i>)	84.17
SPACE/SCALE		over (<i>authority</i>)	37.9	3		
		and (<i>addition</i>)	89.101	3		
SPACE/PATH		up to (<i>degree</i>)	78.51	2		
		in order to (<i>purpose</i>)	89.60	4		
FORCE/RESISTANCE		to (<i>experienter</i>)	90.57	16		
FORCE/ENABLEMENT	against (<i>opposition</i>)	90.34	5			
	for (<i>benefaction</i>)	90.40	5			

Table 4.42: Metaphoric meanings of ἐπί (*epi*) and its two basic meanings.

ἐπί (*epi*) stands out among the four prepositions that have two basic meanings (Table 4.42) because both of its basic meanings account for more than one metaphoric meaning. First we cover contextual meanings based on ‘upon’ that are common with other prepositions and have similar or related basic meanings, leading to similar explanations for the mapping between the basic and metaphoric meanings. The metaphoric meanings of *content* and the causative meanings of *reason*, *instrument*, and *agent* can be explained in the same manner as *content* and *reason* for ὑπέρ (*hyper*) which are based on the spatial meaning of ‘over’. ‘Upon’ differs from ‘over’ in that it implies contact between the trajector and the surface of the landmark (Luraghi, 2003, p. 313), which is of little consequence to the mapping between the physical meaning and the metaphoric meaning. Thus, ‘upon’, like ‘over’, delimits the area of the *content* (or topic) which extends into *reason*, *instrument*, or *agent* when the context dictates that the topic fulfills the function of cause, instrumentality, and agency. The metaphoric meaning of ‘over’ (*authority*) is the complement of the ‘under’ (*control*) meaning of ὑπό (*hypo*): ‘over’ refers to the one in control (above) and ‘under’ refers to the one subject to the control (under). Thus, it can also be explained via the CONTROL IS UP metaphor.

Three meanings based on ‘upon’ are unique to ἐπί (*epi*): *addition*, *basis*, and *responsibility* (examples in Table 4.43); all of these are found in corresponding conceptual metaphors. *Addition* is accounted for with the SPACE/SCALE image schema and the corresponding metaphor MORE IS HIGHER. *Basis* is found in BASIC ASSUMPTIONS OF A THEORY ARE FOUNDATIONS. A theory in this case can be generalized to any reasoning or progression of thought, both of which are components of theories and their explanations or defenses. In fact this metaphor has THEORIES ARE DEFENSIBLE POSITIONS at a level above it in the hierarchy. *Responsibility* is found in the metaphor OBLIGATIONS ARE BURDENS (ON SHOULDER/BACK/LAP), which belongs to the RESPONSIBILITIES metaphor hier-

archy. Although *basis* and *responsibility* are explained with different metaphors, the example for *basis* shows an instance where both meanings are applicable. The situation in which claims are confirmed by witnesses, one can construe this as the confirmation on the basis testimonies; however, the tagging in the corpus construes this as having an additional element of accountability which subsumes basis(i.e., on the responsibility of the testimonies). This clarification is necessary because this is the only example of *responsibility* in the corpus.

Reference/Info	Verse
Philippians 2:27	και γαρ ησθενησεν παραπλησιον θανατω αλλα ο θεος ηλεησεν αυτον ουκ αυτον δε μονον αλλα και εμε ινα μη λυπην [επι λυπηνη]σχω
ἐπί (<i>epi</i>)	
<i>addition</i>	
Context: 89.101 ‘and’	<i>kai gar ēsthenēsen paraplēsion thanatō alla o theos ēleēsen auton ouk auton de monon alla kai eme ina mē lypēn [epi lypēn] schō</i>
Basic: 83.46 ‘upon’	
SPACE/SCALE	
	For indeed he was sick, coming near to death, but God had mercy on him and not on him only, but also on me, so that I would not have grief [upon grief].
Romans 4:5	τω δε μη εργαζομενω πιστευοντι δε [επι τον δικαιοунτα τον ασεβη]λογιζεται η πιστις αυτου εις δικαιοσυνην
ἐπί (<i>epi</i>)	
<i>basis</i>	<i>tō de mē ergazomenō pisteuonti de [epi ton dikaiounta ton asebe] logizetai ē pistis autou eis dikaiosynēn</i>
Context: 89.13 ‘in view of’	
Basic: 83.46 ‘upon’	But to the one who does not work, but who believes [in the one who justifies the ungodly], his faith is credited for righteousness,
SPACE/LOCATION	
2 Corinthians 13:1	τριτον τουτο ερχομαι προς υμας [επι στοματος δυο μαρτυρων και τριων]σταθησεται παν ρημα
ἐπί (<i>epi</i>)	
<i>responsibility</i>	<i>triton touto erchomai pros ymas [epi stomatos dyo martyrōn kai triōn] stathēsetai pan rēma</i>
Context: 90.17 ‘upon’	
Basic: 83.46 ‘upon’	This is the third time I am coming to you. [By the testimony of two or three witnesses] every word will be established.
SPACE/LOCATION	

Table 4.43: Example verses of meanings unique to ἐπί (*epi*).

Apart from two exceptions, the metaphoric meanings of ἐπί (*epi*) that are based on ‘toward’ are all found in εἰς (*eis*) and can be explained in a manner similar to their counterparts. The two exceptions are the opposing meanings of *benefaction* and *opposition* (examples in Table 4.44). For ἐπί (*epi*), *benefaction* is accounted for with FORCE/ENABLEMENT instead of SPACE/PATH because of differences in both the contextual and basic meanings. The contextual meaning for ἐπί (*epi*) implies a dependent relationship whereas that of εἰς/90.41 (*eis*) conveys the direction toward the beneficiary. Furthermore, the basic meaning for ἐπί (*epi*) implies reaching the goal whereas that of εἰς/84.16 (*eis*) conveys direction towards a goal. Thus, FORCE/ENABLEMENT construes the beneficial act as one of advancing the recipient or keeping her/him in position. *Opposition* is not among the meanings of εἰς (*eis*). It can be explained as having the same mechanism as *benefaction* but with a negative intent using the FORCE/RESISTANCE image schema²⁰. This meaning is found in the EVENT STRUCTURE metaphor EXTERNAL EVENTS DETRIMENTAL TO ACTION ARE OPPOSING FORCES. Thus, *opposition* in ἐπί (*epi*) is construed as preventing progress or motion on the part of the landmark by keeping it still or moving it in a direction other than the desired one.

²⁰Luraghi (, pp. 311-313) refers to this as *malefactive benefaction* and the *opposition* meaning of ἐπί (*epi*) preceded that of *benefaction*. However, she accounts for the metaphoric meanings of *benefaction* and *opposition* as extensions of *reason*, which she considers to be based on the meaning of direction rather than force. Our analysis is not in agreement with hers based on the basic meanings found in the Louw-Nida lexicon which, as documented in the Methodology chapter, contains meanings of the language of New Testament Greek as opposed to the Classical Greek that Luraghi analyzes.

Reference/Info	Verse
Romans 4:9	ο μακαρισμος ουν ουτος [επι την περιτομην]η και επι την ακροβυστιαν λεγομεν γαρ ελογισθη τω αβρααμ η πιστις εις δικαιοσυνην
ἐπί (<i>epi</i>)	
<i>benefaction</i>	
Context: 90.40 ‘for’	<i>o makarismos oun outos [epi tēn peritomēn] ē kai [epi tēn akrobustian] legomen gar elogisthē tō abraam ē pistis eis dikaiosynēn</i>
Basic: 84.17 ‘toward’	
FORCE/ENABLEMENT	
	Therefore, is this blessing for those who are circumcised, or also [for those who are uncircumcised]? For we say, “Faith was credited to Abraham for righteousness.”
Romans 2:2	οιδαμεν δε οτι το κριμα του θεου εστιν κατα αληθειαν [επι τους τα τοιαυτα πρασσοντας]
ἐπί (<i>epi</i>)	
<i>opposition</i>	
Context: 90.34 ‘against’	
Basic: 84.17 ‘toward’	
FORCE/RESISTANCE	
	Now we know that the judgment of God is according to truth [against those who do such things].

Table 4.44: Example verses of *benefaction* and *opposition* meanings of ἐπί (*epi*).

Three prepositions have 4 or 5 basic meanings: *πρός* (*pros*), *παρά* (*para*), and *κατά* (*kata*) (Tables 4.45, 4.47, and 4.49, respectively). They compose 22.52% of the list and 13.75% of the corpus.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	<i>πρός</i> (<i>pros</i>)	with (association)	89.112	9	among (location)	83.9
SPACE/SCALE		about (content)	90.25	1	at (location)	83.24
SPACE/PATH		to the point of (degree)	78.51	1	to (extension)	84.18
		for (purpose)	89.60	31		
		end in (result)	89.44	2		
		with regard to (specification)	89.7	9		
		according to (correspondence)	89.9	5		
		in opinion of (view-point participant)	90.20	2		
		to (experiencer)	90.58	20		
		compared to (comparison)	64.17	1		
FORCE/RESISTANCE		against (opposition)	90.33	7	against (extension)	84.23

Table 4.45: Metaphoric meanings of *πρός* (*pros*) and its two basic meanings.

πρός (*pros*) has 11 meanings, 8 of which have metaphoric-to-basic mappings that are shared with other prepositions. Of the remaining three mappings that are unique to *πρός* (*pros*), two contain metaphoric meanings that are unique to it: *comparison* and *correspondence*²¹. Along with *specification*, these metaphoric meanings map to the basic meaning of ‘to’²², and the definitions of the corresponding contextual meanings can be restated as “a marker of a relation involving ...” the corresponding abstract concept (e.g., “a marker of a relation involving comparison”)²³. Thus, in all three cases, a generic marker of relation is de-

²¹*κατά* (*kata*) has a similar meaning that is labeled as *isomorphism*, but both are under the same domain (*89 Relations/E Relations Involving Correspondences (Isomorphisms)*). *Isomorphism* refers to similarity whereas *correspondence* refers to “some element of reciprocity”.

²²The Louw-Nida definition for *πρός* (*pros*)/84.18 is “extension toward a goal, with the probability of some type of implied interaction or reciprocity”; this is the only definition that adds a non-spatial element to the definition. This is the case because its use involves spatial travel for the purpose of interaction or in the context of reciprocity. We only use the spatial aspect of the definition as this forms the basic meaning of a spatial or physical nature that we search for as part of the MIP procedure. The definitions for *specification* and *correspondence* refer to relations “involving potential interaction” and “probable implication of some element of reciprocity”, respectively, however, these cannot be mapped to the “interaction or reciprocity” as they are intrinsic to the metaphoric meaning and not co-existent with the physical meaning.

²³The definitions of *specification* and *correspondence* both follow the formula “a marker of a relation involving ... ” and then refer to concepts not based in the spatial meaning of ‘to’. The definition of *specification* refers to “potential interaction”; the definition of *correspondence* refers to “correspondence, with the probable implication of some element of reciprocity”. In the case of *comparison*, *πρός* (*pros*) is defined as “a marker of that which is compared to something else”; however, since comparison can be construed as establishing a relation between two points of comparison, the definition can be stated as follows: “a marker of a relation involving comparison”. The (re-)statements of the definitions of these three meanings, in their opening formula (i.e., “a marker of a relation involving”) and circularity (e.g., *comparison* meaning is defined as a marker of a relation of comparison), show that they simply refer to a

Reference/Info	Verse
2 Corinthians 7:4	πολλη μοι παρρησια [προς υμας] πολλη μοι καυχησις υπερ υμων πεπληρωμαι τη παρακλησει υπερπερισσευομαι τη χαρα επι παση τη θλιψει ημων
πρός (<i>pros</i>)	
<i>specification</i>	
Context: 89.7 ‘with regard to’	<i>pollē moi parrēsia [pros ymas] pollē moi kauchēsis yper ymōn peplērōmai tē paraklēsei yperperisseuomai tē chara epi pasē tē thlipsei ēmōn</i>
Basic: 84.18 ‘to’	
SPACE/PATH	
	Great is my confidence [toward you]; great is my boasting on your behalf; I am filled with encouragement; I am overflowing with joy in all our affliction.
2 Corinthians 5:10	τους γαρ παντας ημας φανερωθηναι δει εμπροσθεν του βηματος του χριστου ινα κοιμισηται εκαστος τα δια του σωματος [προς α επραξεν ειτε αγαθον ειτε φαυλον]
πρός (<i>pros</i>)	
<i>correspondence</i>	
Context: 89.9 ‘according to’	<i>tous gar pantas ēmas phanerōthēnai dei emprosthen tou bēmatos tou christou ina komisētai ekastos ta dia tou sōmatos [pros a epraxen eite agathon eite phaulon]</i>
Basic: 84.18 ‘to’	
SPACE/PATH	
	For we must all appear before the judgment seat of Christ, in order that each one may receive back the things through the body [according to what he has done, whether good or bad].
Romans 8:18	λογιζομαι γαρ οτι ουκ αξια τα παθηματα του νυν καιρου [προς την μελλουσαν δοξαν αποκαλυφθηναι εις ημας]
πρός (<i>pros</i>)	
<i>comparison</i>	
Context: 64.17 ‘compared to’	<i>logizomai gar oti ouk axia ta pathēmata tou nyn kairou [pros tēn mellousan doxan apokalypthēnai eis ēmas]</i>
Basic: 84.18 ‘to’	
SPACE/PATH	
	For I consider that the sufferings of the present time are not worthy to be compared [with the glory that is about to be revealed to us].

Table 4.46: Example verses of meanings and mappings unique to πρόσ (*pros*).

finned based on spatial extension, and the nature of the relation (i.e., *specification*, *correspondence*, or *comparison*) is derived from the context.

The examples in Table 4.46 (p. 93) show this adequately; in each case ‘in relation to’ can substitute for the preposition without losing the meaning of the verse²⁴. This is most apparent in Romans 8:18 (the only instance of prepositional meaning of *comparison* in the New Testament), where πρόσ (*pros*) is preceded by a word meaning ‘comparable’: “... the sufferings of the present time are not worthy to be compared (αξια/*axia*) with (πρός/textitpros)”. Thus, the preposition

relation that is further specified by the context and not inherent to the metaphoric meaning nor inferrable from the basic meaning.

²⁴This can be referred to as the ‘in relation to’ test, whereby one can test whether a preposition carries any meaning not inferrable from context.

serves a purely functional role and does not contribute meaning to the sentence; in effect, it cannot be said to have a metaphoric meaning of any type.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	<i>παρά (para)</i>	with (association)	89.111	2	among (location)	83.9
		in opinion of (view-point participant)	90.20	5	at/near (location)	83.25
		for (agent)	90.3	2		
SPACE/SCALE		less (quantity)	59.76	1	beyond (location)	LSJ C.III
		beyond (degree)	78.29	2		
CONTAINMENT/CONTAINER		instead of (contrast)	89.132	3		
		contrary to (opposition)	89.137	6		
SPACE/PATH		because of (reason)	89.25	2	from (extension)	84.5
		from (source)	90.14	15		

Table 4.47: Metaphoric meanings of *παρά (para)* and its two basic meanings.

Reference/Info	Verse
Romans 1:25	οιτινες μετηλλαξαν την αληθειαν του θεου εν τω ψευδει και εσεβασθησαν και ελατρευσαν τη κτισει [παρα τον κτισαντα ος εστιν ευλογητος εις τους αιωνας αμην]
<i>παρά (para)</i>	
<i>contrast</i>	
Context: 89.132 ‘instead of’	
Basic: LSJ C.III ‘beyond’	
CONTAINMENT/CONTAINER	who exchanged the truth of God with a lie, and worshiped and served the creation [rather than the Creator], who is blessed for eternity. Amen.
Romans 1:26	δια τουτο παρεδωκεν αυτους ο θεος εις παθη ατιμιαι αι τε γαρ θηλειαι αυτων μετηλλαξαν την φυσικην χρησιν εις την [παρα φυσιν]
<i>παρά (para)</i>	
<i>opposition</i>	
Context: 89.137 ‘contrary to’	
Basic: LSJ C.III ‘beyond’	
CONTAINMENT/CONTAINER	Because of this, God gave them over to degrading passions, for their females exchanged the natural relations for those [contrary to nature],

Table 4.48: Example verses of *contrast* and *opposition* meaning of *παρά (para)*.

παρά (para) has 9 metaphoric meanings distributed among 4 basic meanings (Table 4.47, p. 94). Three mappings are unique to this preposition, two of which have metaphoric meanings unique to it. *Quantity* (‘less’) is the first unique meaning; ‘near’ is added as a gloss in the table to represent the more suitable basic meaning available alongside ‘at’ in the Louw-Nida definition for the same number (83.25). The mapping is explained with the SPACE/PATH image schema and the LINEAR SCALES ARE PATHS metaphor; less implies being near a number or a point on the path but not reaching or equaling it. The other

two unique meanings, *contrast* and *opposition*, are similar and are accounted for with the CONTAINMENT/CONTAINER image schema via the notion that an alternative or a contradiction lies outside of a bounded area which represents the base notion which is replaced or opposed. Table 4.48 (p. 94) shows an example of each of these meanings in two adjacent verses. The choice of the CONTAINMENT/CONTAINER image schema, as opposed to SPACE/PATH, hinges on the basic meaning of ‘beyond’, which implies the crossing of a boundary. A boundary is inherent to CONTAINMENT/CONTAINER, in which the container is defined as a bounded area (Hurtienne, 2007), meaning that it can be two- or three-dimensional; on the other hand, SPACE/PATH has a start, end, and a path, but no boundary that the path crosses. Furthermore, the metaphor OBLIGATIONS/AGREEMENTS ARE CONTAINERS can be leveraged to support choosing the CONTAINMENT/CONTAINER image schema. According to this metaphor, not acting according to obligations or agreements maps to being outside of (i.e., beyond) a bounded area. Both *contrast* and *opposition* contain analogues to obligations/agreements. In *contrast* (*X instead of Y*), *Y* is the expected choice or the unchosen option that is being highlighted, and *X* is the chosen option that lies beyond it; the expected choice is analogous to expectations of obligations/agreements whose violation maps to a position outside the container. For *opposition* (*X contrary to Y*), *Y* is the opposed entity and *X* is the opposing entity which is positioned beyond it rather than with it; this opposition, rather than the expected harmony, is also analogous to the expectations of obligations/agreements. Thus, we can derive two entailments from this metaphor: UNCHOSEN OPTIONS ARE CONTAINERS (*contrast*) and OPPOSED ENTITIES ARE CONTAINERS (*opposition*).

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	κατά (<i>kata</i>)	with (association)	89.113	4	among (location)	83.12
SPACE/PATH		with regard to (specification)	89.4	23	facing toward (location)	83.45
		in accordance with (isomorphic)	89.8	126	along (extension)	84.30
FORCE/RESISTANCE		from ... to (distributive)	89.90	11	throughout (extension)	84.31
		against (opposition)	90.31	13	opposite (location)	83.44

Table 4.49: Metaphoric meanings of κατά (*kata*) and its two basic meanings.

Finally, κατά (*kata*) exhibits a unique pattern of five basic meanings each relating to a unique metaphoric meaning, two of which are unique to this preposition. The *isomorphic* sense of κατά (*kata*) (‘in accordance with’) is based on ‘along’. In addition to the SPACE/PATH image schema, the metaphor COMPLIANCE IS FOLLOWING is useful in accounting for the mapping. A standard or expectation is a path, and an action or behavior conforming to it is mapped to walking along, following, or tracing the path. This meaning is by far the most frequent for this preposition; 126 prepositional instances of κατά (*kata*) have this meaning out of a total of 177. According to the Louw-Nida definition, the *dis-*

tributive meaning applies to ‘place, time, or number’. Table 4.50 contains the two numeric instances, both of which are translated ‘each’ since *κατά* (*kata*) is followed by ‘one’²⁵.

Reference/Info	Verse
Romans 12:5	οὕτως οἱ πολλοὶ ἐν σῶμα ἐσμεν ἐν χριστῷ το δε [κατα εις]ἀλλήλων μέλη
<i>distributive</i>	<i>outōs oi polloi en sōma esmen en christō to de [kata eis]</i>
Context: 89.90 ‘from ... to’	<i>allēlōn melē</i>
Basic: 84.31 ‘throughout’	in the same way we who are many are one body in Christ,
SPACE/PATH	and [individually] members of one another,
Ephesians 5:33	πλὴν καὶ ὑμεῖς οἱ [κατα ἐνα]ἐκαστος τὴν ἑαυτοῦ γυναῖκα οὕτως ἀγαπάτω ὡς ἑαυτόν ἢ δε γυνὴ ἵνα φοβῆται τὸν ἀνδρα
<i>κατά</i> (<i>kata</i>)	
<i>distributive</i>	<i>plēn kai ymeis oi [kata ena] ekastos tēn eautou gynaika</i>
Context: 89.90 ‘from ... to’	<i>outōs agapatō ōs eauton ē de gynē ina phobētai ton andra</i>
Basic: 84.31 ‘throughout’	Only you also, [each one of you], must thus love his own
SPACE/PATH	wife as himself, and the wife must respect her husband.

Table 4.50: Example verses of the *distributive* meaning of *κατά* (*kata*) as applied to number.

Table 4.51 (p. 97) contains examples of two other meanings with aspects of their mappings that should be highlighted: *opposition* and *specification*²⁶. It is worth noting that additional inference from context is required to account for the mapping between *opposition* (‘against’) and locative ‘opposite’ in a manner similar to how *exchange* and *reason* are explained for ἀντί (*anti*), which shares this basic meaning (see page 80). From context one can infer that two entities are positioned opposite of one another with the motive or intent of opposition. Apart from context, this static position is one of many possibilities; even a meaning of motion towards an object does not conclusively map to opposition as can be seen with πρὸς (*pros*) whose basic meaning of towards can mean *benefaction* as well as *opposition* (p. 92). The mapping between *specification* (‘with regard to’, ‘in relation to’) and physical orientation (‘facing toward’) is more straight forward and does not depend on context. An object facing toward or in the direction of another can be construed as pointing to the mental space of an entity, thereby establishing a relation; it is similar to that of πρὸς (*pros*, ‘toward’).

²⁵εἷς (*heis*), not to be confused with the preposition εἰς (*eis*), means ‘one’. Romans 12:5 contains its lexical form (accusative, singular, masculine) and Ephesians 5:33 contains its accusative form ἕνα.

²⁶The mapping between *association* (‘with’) and *location* (‘among’) is discussed μετὰ (*meta*, 78) and exists for πρὸς (*pros*, 92) and παρά (*para*, 94).

Reference/Info	Verse
Romans 8:33	τις εγκαλεσει [κατα εκλεκτων θεου]θεος ο δικαιων
κατά (<i>kata</i>)	
<i>opposition</i>	<i>tis enkalesei</i> [<i>kata</i> <i>eklektōn theou</i>] <i>theos o dikaiōn</i>
Context: 90.31 ‘against’	
Basic: 83.44 ‘opposite’	Who will bring charges [against God’s elect]? God is
FORCE/RESISTANCE	the one who justifies.
Titus 3:7	ινα δικαιωθεντες τη εκεινου χαριτι κληρονομοι γενηθωμεν
κατά (<i>kata</i>)	[κατα ελπιδα ζωης αιωνιου]
<i>specification</i>	<i>ina dikaiōthentes tē ekeinou chariti klēronomoi</i>
Context: 89.4 ‘with regard to’	<i>genēthōmen</i> [<i>kata</i> <i>elpida zōēs aiōniou</i>]
Basic: 83.45 ‘facing toward’	so that, having been justified by his grace, we may be-
SPACE/PATH	come heirs [according to the hope of eternal life].

Table 4.51: Example verses of *opposition* and *specification* for κατά (*kata*).

4.5 Image Schemas and Prepositions

Whereas the previous section gives a broad preposition-by-preposition overview of the mappings between basic and contextual/metaphoric meaning, this section gives a concise snapshot of the distributions of image schemas over prepositions. It serves as a gradual shift of focus from metaphorical and basic meanings to the image schemas that underlie the metaphors previously explained. There is also a transition from qualitative analysis to quantitative analysis focused on frequencies, percent distributions, and rankings. Through this analysis, we seek to capture the explanatory power of image schemas when they are identified as bridges between the contextual and basic meanings identified in MIP.

First, we summarize the mappings between abstract metaphoric prepositions and image schemas via two matrices; the first displays the list frequency of each mapping (Table 4.52, 98) and the second displays the corpus frequency (Table 4.53, 99). The list frequency allows us to see, for every preposition, how many different meanings are accounted for with the same image schema. The corpus frequency informs us of how often each image schema is encountered for a given preposition. In addition, in these tables there are total frequencies for each preposition and for each image schema.

In these tables we make two observations. First, prepositions tend to have a single image schema that accounts for the majority of the metaphoric meanings with respect to both the list frequency and the corpus frequency. In fact, for prepositions where there is more than one image schema, the most frequent image schema has more than twice the frequency of the next most frequent image

schema²⁷, which is an indicator of the degree to which the most frequent image schema exceeds the rest. Second, this most frequent image schema accounts for multiple varying meanings for their respective prepositions. For example, for $\epsilon\text{-}\iota\varsigma$ (*eis*, the **SPACE/PATH** image schema accounts for the following meanings: *to (change of state)*, *so that (result)*, *in order to (purpose)*, *with reference to (content)*, *on behalf of (benefaction)*, and *to (experiencer)*).

Preposition	SPACE/PATH	SPACE/LOCATION	CONTAINMENT/CONTAINER	SPACE/SCALE	SPACE/UP-DOWN	CONTAINMENT/IN-OUT	FORCE/RESISTANCE	MULTIPLICITY/PART-WHOLE	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	MULTIPLICITY/MATCHING	SPACE/CENTER-PERIPHERY	SPACE/FRONT-BACK	Total
ἐπί (<i>epi</i> , 'at, toward, upon')	2	6	0	2	1	0	1	0	1	0	0	0	0	13
ἐν (<i>en</i> , 'among, at, in')	0	2	10	0	0	0	0	0	0	0	0	0	0	12
πρός (<i>pros</i> , 'against, among, at, to')	7	2	0	1	0	0	1	0	0	0	0	0	0	11
παρά (<i>para</i> , 'among, at, beyond, from')	2	3	2	2	0	0	0	0	0	0	0	0	0	9
ἐκ (<i>ek</i> , 'out of')	7	0	0	0	0	1	0	1	0	0	0	0	0	9
εἰς (<i>eis</i> , 'inside, into, on, to')	6	0	1	1	0	0	0	0	0	0	0	0	0	8
μετά (<i>meta</i> , 'among, beyond')	0	7	0	0	0	0	0	0	0	0	0	0	0	7
διά (<i>dia</i> , 'along, through')	6	0	0	0	0	0	0	0	0	0	0	0	0	6
κατά (<i>kata</i> , 'along, among, facing toward, opposite, throughout')	3	1	0	0	0	0	1	0	0	0	0	0	0	5
ὑπέρ (<i>hyper</i> , 'beyond, over')	0	3	0	1	1	0	0	0	0	0	0	0	0	5
περί (<i>peri</i> , 'around')	0	3	0	0	0	0	0	0	0	0	0	1	0	4
ὑπό (<i>hypo</i> , 'under')	0	0	0	3	0	0	0	0	0	0	0	0	0	3
ἀπό (<i>apo</i> , 'from')	3	0	0	0	0	0	0	0	0	0	0	0	0	3
ἀντί (<i>anti</i> , 'opposite')	0	1	0	0	0	0	0	0	0	1	1	0	0	3
ἐκτός (<i>ektos</i> , 'outside')	0	0	0	0	0	2	0	0	0	0	0	0	0	2
ἕως (<i>heos</i> , 'as far as')	0	0	0	2	0	0	0	0	0	0	0	0	0	2
κατενώπιον (<i>katēnōpion</i> , 'in front of')	0	1	0	0	0	0	0	0	0	0	0	0	0	1
κατέναντι (<i>katēnanti</i> , 'opposite')	0	1	0	0	0	0	0	0	0	0	0	0	0	1
μεταξύ (<i>metaxy</i> , 'between')	0	1	0	0	0	0	0	0	0	0	0	0	0	1
μέχρι (<i>mechri</i> , 'as far as')	0	0	0	1	0	0	0	0	0	0	0	0	0	1
ἔμπροσθεν (<i>emprosthen</i> , 'in front of')	0	1	0	0	0	0	0	0	0	0	0	0	0	1
ὀπίσω (<i>opisō</i> , 'behind')	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ὑπεράνω (<i>hyperanō</i> , 'above')	0	0	0	0	1	0	0	0	0	0	0	0	0	1
χωρίς (<i>chōris</i> , 'separately')	0	0	0	0	0	0	0	1	0	0	0	0	0	1
ἐνώπιον (<i>enōpion</i> , 'in front of')	0	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	36	33	13	10	6	3	3	2	1	1	1	1	1	111

Table 4.52: Abstract metaphoric prepositions and image schemas, list frequencies.

²⁷The only cases where this observation does not hold up are *παρά* (*para*, 'among, at, beyond, from') and *ἀντί* (*anti*, 'opposite').

Preposition	SPACE/PATH	CONTAINMENT/CONTAINER	SPACE/LOCATION	SPACE/UP-DOWN	SPACE/SCALE	MULTIPLICITY/PART-WHOLE	FORCE/RESISTANCE	SPACE/CENTER-PERIPHERY	CONTAINMENT/IN-OUT	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	MULTIPLICITY/MATCHING	SPACE/FRONT-BACK	Total
ἐν (<i>en</i> , 'among, at, in')	0	586	66	0	0	0	0	0	0	0	0	0	0	652
εἰς (<i>eis</i> , 'inside, into, on, to')	306	4	0	0	9	0	0	0	0	0	0	0	0	319
διὰ (<i>dia</i> , 'along, through')	274	0	0	0	0	0	0	0	0	0	0	0	0	274
κατά (<i>kata</i> , 'along, among, facing toward, opposite, throughout')	160	0	4	0	0	0	13	0	0	0	0	0	0	177
ἐκ (<i>ek</i> , 'out of')	144	0	0	0	0	15	0	0	1	0	0	0	0	160
ὑπέρ (<i>hyper</i> , 'beyond, over')	0	0	89	3	7	0	0	0	0	0	0	0	0	99
πρός (<i>pros</i> , 'against, among, at, to')	70	0	10	0	1	0	7	0	0	0	0	0	0	88
ἐπί (<i>epi</i> , 'at, toward, upon')	20	0	46	3	5	0	5	0	0	5	0	0	0	84
ἀπό (<i>apo</i> , 'from')	81	0	0	0	0	0	0	0	0	0	0	0	0	81
μετά (<i>meta</i> , 'among, beyond')	0	0	70	0	0	0	0	0	0	0	0	0	0	70
ὑπό (<i>hypo</i> , 'under')	0	0	0	68	0	0	0	0	0	0	0	0	0	68
περί (<i>peri</i> , 'around')	0	0	44	0	0	0	0	8	0	0	0	0	0	52
παρά (<i>para</i> , 'among, at, beyond, from')	17	9	9	0	3	0	0	0	0	0	0	0	0	38
χωρίς (<i>chōris</i> , 'separately')	0	0	0	0	0	13	0	0	0	0	0	0	0	13
ἐνώπιον (<i>enōpion</i> , 'in front of')	0	0	7	0	0	0	0	0	0	0	0	0	0	7
ἐκτός (<i>ektos</i> , 'outside')	0	0	0	0	0	0	0	0	5	0	0	0	0	5
ἀντί (<i>anti</i> , 'opposite')	0	0	1	0	0	0	0	0	0	2	2	0	0	5
ἕως (<i>heōs</i> , 'as far as')	0	0	0	0	3	0	0	0	0	0	0	0	0	3
κατενώπιον (<i>katēnōpion</i> , 'in front of')	0	0	2	0	0	0	0	0	0	0	0	0	0	2
μέχρι (<i>mechri</i> , 'as far as')	0	0	0	0	1	0	0	0	0	0	0	0	0	1
κατέναντι (<i>katēnanti</i> , 'opposite')	0	0	1	0	0	0	0	0	0	0	0	0	0	1
ἔμπροσθεν (<i>emprosthen</i> , 'in front of')	0	0	1	0	0	0	0	0	0	0	0	0	0	1
ὀπίσω (<i>opisō</i> , 'behind')	0	0	0	0	0	0	0	0	0	0	0	0	1	1
ὑπεράνω (<i>hyperanō</i> , 'above')	0	0	0	1	0	0	0	0	0	0	0	0	0	1
μεταξύ (<i>metaxy</i> , 'between')	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	1072	599	351	75	29	28	25	8	6	5	2	2	1	2203

Table 4.53: Abstract metaphoric prepositions and image schemas, corpus frequencies.

In addition to the most frequent image schemas of prepositions, we look at the number of image schemas associated with a given preposition. We refer to this as *cognitive range* (as opposed to lexical range), which indicates the versatility of the preposition in being related to different image schemas to account for various metaphoric meanings. This measure is one we derived for the study and is not a standard designation. Based on the cognitive ranges measured, we look at how many prepositions possess that range as well as the frequencies and distributions of their preposition senses (Table 4.54).

Cognitive Range	Prepositions	List Freq.	% List	Corpus Freq.	% Corpus
6	1	13	11.71%	84	3.81%
5	0	0	0.00%	0	0.00%
4	2	20	18.02%	126	5.72%
3	5	30	27.03%	760	34.50%
2	2	16	14.41%	704	31.96%
1	15	32	28.83%	529	24.01%
<i>Total</i>	25	111	100.00%	2203	100.00%

Table 4.54: Cognitive range of abstract metaphor prepositions.

ἐπί (*epi*) (6), πρὸς (*pros*) (4), and παρὰ (*para*) (4) have the broadest cognitive range. Although these prepositions have high list frequencies, the corpus frequencies are low (29.73% vs. 9.53%). ἐκ (*ek*), εἰς (*eis*), κατὰ (*kata*), ὑπέρ (*hyper*), and ἀντί (*anti*) have a cognitive range of 3; they account for 27.03% of the list and 34.50% of the corpus. ἐν (*en*) and περί (*peri*) have a cognitive range of 2; they account for 31.96% of the corpus, which is almost double their list frequency (14.41%). 15 of the 25 prepositions correspond to a single image schema, accounting for 28.83% of the list and 24.01% of the corpus.

If we form three clusters of ambiguity based on the cognitive range, it is observed that low ambiguity (cognitive range of 2 and 3) characterizes most of the corpus (66.45%) and a good portion of the list (41.44%). No ambiguity (1 image schema) characterizes almost a quarter of the corpus (24.01%) while high ambiguity (cognitive range of 4 and 6) has a minor presence in the corpus (9.53%); these two categories are close in frequency in the list (28.83% and 29.73%).

This view of the data sheds light on the number of options available to a reader trying to understand the nature of the metaphoric use of a preposition in terms of image schemas. Regardless of the level of cognitive ambiguity, the cognitive perspective (number of image schemas) is numerically less complex than the lexical perspective (number of abstract meanings) because the number of image schemas is less than the number of abstract metaphoric meanings. The thirteen meanings of ἐπί (*epi*), the preposition with the highest cognitive ambiguity, are reduced to six image schemas. ἐν (*en*), which has low-ambiguity, has its twelve

meanings reduced to two image schemas. At the same time, for these two prepositions, as with others, there is a single image schema that accounts for most of the meanings and most of the corpus occurrences.

The general conclusion we arrive at based on these results is that low ambiguity is more frequent when associating an image schema with a preposition, and the ambiguity is further reduced based on the existence of a single highly frequent image schema.

4.6 Intersection of Contextual and Basic Domains

The previous section establishes a notion of ambiguity based on the number of image schemas that correspond to a preposition. This section does the same, but instead of intersecting prepositions and image schemas, it intersects the semantic domains of the contextual meanings and their corresponding basic meanings. The relevant data items that we use from the MIP analysis are the following:

1. a preposition sense which consists of a preposition and the Louw-Nida number that indicates its contextual meaning
2. the Louw-Nida number of the corresponding basic meaning
3. the image schema that accounts for the mapping between the basic and contextual meaning

From this data we use the semantic domains of the contextual and basic meanings to create a list of intersections containing the image schemas that account for the prepositional senses within these domains. Instead of using items 1 and 2, which would have to be represented by Louw-Nida numbers or English glosses, we use the semantic sub-domain that is above them which groups similar meanings together. These subdomains serve as a wider category of meaning that is specific enough to convey the essence of the contextual and basic meaning. For example, $\epsilon\acute{\iota}\varsigma$ (*eis*) and $\epsilon\nu$ (*en*) share the contextual meaning of ‘by (means)’ which has the Louw-Nida number of 89.76; the corresponding basic meanings are ‘inside’ and ‘in’ which share the same Louw-Nida number of 83.13. Louw-Nida numbers 89.76 (contextual meaning) and 83.13 (basic meaning) fall under the Louw-Nida domains of *89 Relations/L Means* and *83 Spacial Positions C Among, Between, In, Inside*, respectively. Rather than referring to the glosses of ‘by (means)’ and ‘inside/in’ (or their Louw-Nida numbers), we reference the domains they fall under in abbreviated form: *89/L Means* and *83/C Among, Between, In, Inside*. After showing the frequencies of the intersections according to the number of image schemas and prepositional senses, we look at the image schemas in the intersections.

Table 4.55 shows a statistical summary of the frequencies and distributions of the intersections, list, and corpus according to number of prepositional senses and image schemas. Table 4.57 shows the image schemas at each intersection (Table 4.56 on page 104 contains the key for the image schema abbreviations).^{28 29}

Senses in Intersection	Image Schemas in Intersection	Intersection Freq.	% of Intersections	List Freq.	% List	Corpus Freq.	% Corpus
7	2	1	1.22%	7	6.31%	209	9.49%
5	1	1	1.22%	5	4.5%	15	0.68%
3	1	4	4.88%	12	10.81%	332	15.07%
2	2	3	3.66%	6	5.41%	58	2.63%
	1	8	9.76%	17	15.32%	219	9.94%
1	1	65	79.27%	64	58.56%	1370	62.19%
<i>Total</i>		82	100.00%	111	100.00%	2203	100.00%

Table 4.55: Prepositional sense intersections of contextual domains and basic domains.

²⁸Appendix C.8 (p. 175) contains more details from this analysis. Table C.20 displays prepositions in the intersections and Tables C.21 contains the details of the intersections containing multiple image schemas and prepositions. The appendix also contains the list and corpus frequencies of the intersections (pp. 176-175).

²⁹The addition of prepositional senses into this section's data view (Table C.22, p. 177); Table C.23, p. 178) reveals only two cases where multiple senses for the same preposition exist within the same intersection. In each case, there are two prepositional senses for the same preposition:

1. μετά (*meta*) in the domain of *89/T Association*: 'with [people]' (*89.108*) vs. 'with [instruments]' (*89.109*)
2. παρά (*para*) in the domain of *89/W Contrast*: 'rather than' (alternative) vs. 'contrary to [expectations]'

In both of these cases, the same image schema accounts for the two senses of the preposition.

Category/Image Schema Name	Abbreviation
SPACE/PATH	S/PATH
CONTAINMENT/CONTAINER	C/CONT
SPACE/LOCATION	S/LOC
SPACE/UP-DOWN	S/U-D
SPACE/SCALE	S/SCA
MULTIPLICITY/PART-WHOLE	M/PT-WH
FORCE/RESISTANCE	F/RES
SPACE/CENTER-PERIPHERY	S/CT-PR
CONTAINMENT/IN-OUT	C/I-O
FORCE/ENABLEMENT	F/EN
MULTIPLICITY/LINKAGE	M/LINK
MULTIPLICITY/MATCHING	M/MATCH
SPACE/FRONT-BACK	S/F-B

Table 4.56: Key to ISCAT category/image schema abbreviations.

	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/C Extension Along a Path	84/A Extension From a Source	83/I Above, Below	83/D Around, About, Outside	83/H On, Upon, On the Surface Of	83/G Opposite, Over Against, Across From, Offshore From	83/I Beyond, On the Other Side Of	63/G Separate	83/F In Front Of, Face To Face, In Back Of, Behind	83/E At, Beside, Near, Far
89/D Specification	C/CONT	S/PATH				S/LOC		S/PATH				
89/T Association	C/CONT S/LOC											
89/L Means	C/CONT		S/PATH	S/PATH								
89/G Cause and/or Reason	C/CONT		S/PATH	S/PATH	S/LOC S/U-D	S/LOC	S/LOC	M/LINK				
89/I Purpose		S/PATH										
89/E Relations Involving Correspondences		S/PATH	S/PATH									
89/N Manner	C/CONT			S/PATH								
90/I Benefaction	S/LOC	S/PATH F/EN	S/PATH		S/LOC	S/CT-Pr		S/LOC				
90/B Instrument	C/CONT		S/PATH	S/PATH			S/LOC					
90/A Agent	C/CONT		S/PATH	S/PATH	S/U-D		S/LOC				S/LOC	
90/F Content		S/PATH			S/LOC	S/LOC	S/LOC				S/LOC	
90/C Source of Event or Activity				S/PATH								
90/M Experiencer	C/CONT S/LOC	S/PATH										
89/U Dissociation				S/PATH		C/I-O				M/PT-WH		
90/J Reason Participant			S/PATH									
89/M Attendant Circumstances	S/LOC											
89/H Result		S/PATH										
13/B Change of State		S/PATH										
13/A State	S/LOC											
90/H Opposition	S/LOC	F/RES						F/RES				
37/A Control, Restrain					S/U-D		S/U-D					
90/E Viewpoint Participant		S/PATH						S/LOC			S/LOC	S/LOC
63/D Part				M/PT-WH								
78/E Up To, As Much As, To the Degree That		S/SCA										
89/W Contrast						C/I-O			C/CONT			
89/F Distribution			S/PATH									
89/C Derivation				S/PATH								
78/B More Than, Less Than					S/SCA				S/SCA			
89/Y Substance	C/CONT			C/I-O								
87/C High Status or Rank					S/U-D							
89/F Basis							S/LOC					
89/Q Addition							S/SCA					
89/V Combinative Relation	S/LOC											
57/J Exchange								M/MATCH				
59/H Add, Subtract							S/LOC					S/SCA
90/D Responsibility												
59/B Much, Little		S/SCA										
90/G Guarantor Participant with Oaths	C/CONT											
36/D Follow, Be a Disciple											S/F-B	
64 Comparison		S/PATH										

Table 4.57: Intersection of contextual and basic domains, image schemas.

In Table 4.57 (p. 105) low ambiguity is observed with respect to image schemas because 78 of the 82 intersections have a single image schema, and none of the intersections exceed two image schemas. The term “low ambiguity” is maintained in spite of only a single image schema being identified because there always remains the explanation that must be derived for the contextual meaning based on the image schema. Even the remaining four intersections that have two image schemas do not show much ambiguity because they are related to one another. In three instances, SPACE/LOCATION is part of the pair. For two of those pairs of intersections, the contextual domains (*89/T Association* and *90/M Experiencer*) have the same basic domain of *83/C Among, Between, In, Inside* and SPACE/LOCATION is accompanied by CONTAINMENT/CONTAINER, which has a stricter notion of boundaries. In both cases, the prepositional senses of *ἐν* (*en*) are accounted for with the more specific image schema CONTAINMENT/CONTAINER when other prepositional senses for the same preposition are accounted for with the more general SPACE/LOCATION. This is discussed in Section 4.4.3 (p. 82). In the third instance where SPACE/LOCATION is part of a pair (*89/G Cause and/or Reason* based on *83/I Above, Below*), the other image schema is SPACE/UP-DOWN. Here the relation between the two image schemas is not so much general-to-specific as the use of an aspect of the image schema to convey the more general notion of location; this is discussed in Section 4.7.2 (p. 115). In the last instance of a double-image-schema intersection, the two image schemas, SPACE/PATH and FORCE/ENABLEMENT, consists of one image schema being the extension of the other. FORCE/ENABLEMENT is based on SPACE/PATH, but adds to it the notions of force and the enablement of the motion of one object by another. Talmy’s work on force dynamics is covered in the literature review (p. 12), presenting a complex model for various force dynamics image schemas. Thus, it can be said that based on the relations between the image schemas in these intersections, a uniform image schema account can be given for all intersections of contextual and basic domains.³⁰ 87.88% of the corpus and 88.29% of the list have the reduced ambiguity of a single image schema while the remainder have reduced ambiguity because the two image schemas are related. Thus, based on the few number of image schemas at each intersection, this view of the data again shows a low level of ambiguity afforded when one establishes a correspondence between the contextual and basic meaning.

³⁰In hindsight, one can replace the step of identifying a single image schema with one where an image schema corresponding to the basic meaning is chosen and another corresponding to the contextual meaning with the two being allowed to be the same. This does not change the results, but would introduce the notion of a basic image schemas and contextual image schemas, which would bring about an additional kind of analysis.

4.7 Image Schemas

In this section we begin to look at the distributions of individual image schemas. The SPACE/PATH image schema is the most frequent in terms of list and corpus frequency. The SPACE/LOCATION image schema is the second most frequent in the list and third most frequent in the corpus. The CONTAINMENT/CONTAINER image schema is the third most frequent in the corpus and the second most frequent in the list. These three image schemas together account for 91.78% of the corpus and 73.87% of the list. Table 4.58 contains the frequencies and distributions of image schemas sorted by corpus frequency. In the sections to follow, we further explore the domains of basic meaning and conceptual meaning to which these image schemas correspond.

Image Schema	List Freq.	Corpus Freq.	% List	% Corpus
SPACE/PATH	36	1072	32.43	48.66
CONTAINMENT/CONTAINER	13	599	11.71	27.19
SPACE/LOCATION	33	351	29.73	15.93
SPACE/UP-DOWN	6	75	5.41	3.40
SPACE/SCALE	10	29	9.01	1.32
MULTIPLICITY/PART-WHOLE	2	28	1.80	1.27
FORCE/RESISTANCE	3	25	2.70	1.13
SPACE/CENTER-PERIPHERY	1	8	0.90	0.36
CONTAINMENT/IN-OUT	3	6	2.70	0.27
FORCE/ENABLEMENT	1	5	0.90	0.23
MULTIPLICITY/LINKAGE	1	2	0.90	0.09
MULTIPLICITY/MATCHING	1	2	0.90	0.09
SPACE/FRONT-BACK	1	1	0.90	0.05
<i>Total</i>	111	2203	100.00%	100.00%

Table 4.58: Image schemas of abstract metaphors ordered by corpus frequency.

4.7.1 Image Schemas and Domains of Contextual Meaning

Having observed image schemas at the intersection of contextual domains and basic domains, we look at how image schemas intersect with contextual domains in order to more closely observe what contextual meanings they convey. In the next section we do the same for image schemas and basic domains. In essence what we are doing is splitting the contextual-basic mapping in half and observing its interaction with each side individually on the assumption that image schemas form at least part of the cognitive bridge between the contextual and basic meaning. We look at two aspects of the relationship between image schemas and contextual domains:

- for a given contextual domain, how many image schemas account for³¹ it, and
- for a given image schema, how many contextual domains it accounts for.

The 40 prepositional senses of contextual meanings are separated into two groups: those that are accounted for by multiple image schemas and those accounted for by a single image schema. We speak of these two groupings in terms of broadness/narrowness. A broad contextual domain is one that corresponds to many (two or more) image schemas; we find 15 of these. A narrow contextual domain is one that corresponds to only one image schema; we find 25 of these. Conversely, the broad and narrow terminology can be used to describe how image schemas correspond to contextual domains. Broadness/narrowness is not to be confused with cognitive range or ambiguity because it is a symmetrical relation and it is used to describe the general relation between an image schema and a domain in accounting for and being accounted for, which is different than the notion the ambiguity of the meaning of a preposition.

Within these two divisions of the contextual domains, we look for general patterns of the intersections between contextual meanings and image schemas. We try to explain these patterns with respect to three notions:

- the nature of the image schema - specialized (SCALE is specific to numeric values or degrees) vs. general (LOCATION conveys a general notion)
- the configuration of the image schema - simple vs. having many components that can be profiled (mainly PATH which is discussed in the literature review as an example of profiling on p. 9)
- the construal of a contextual meaning - how it is represented through the use of a preposition with a spatial meaning that is associated with an image schema (*reason* is construed as a constraining factor via ‘in’/CONTAINER and as a location on which something rests via ‘on’/LOCATION)

The matrices in Table 4.59 (p. 109) and Table 4.62 (discussed in detail on p. 111) make it possible to observe patterns of broadness and narrowness in terms of the corpus frequencies in the cells. Along the vertical axis, we can observe the broadness of the image schema, how many contextual domains it intersects with. Along the horizontal axis, we can observe the broadness of the contextual domain, how many image schemas it intersects with. Obviously, the matrix of narrow contextual domains does not offer much in terms of broadness along this axis since all the domains correspond to a single image schema.

³¹We use “account for” instead of “explain” because associating an image schema with a contextual/basic meaning pair does not automatically explain the link between the two.

Image Schemas and Broad Contextual Domains

Domain/Subdomain	CONTAINMENT/CONTAINER	SPACE/PATH	SPACE/LOCATION	SPACE/UP-DOWN	FORCE/RESISTANCE	MULTIPLICITY/PART-WHOLE	SPACE/CENTER-PERIPHERY	CONTAINMENT/IN-OUT	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	MULTIPLICITY/MATCHING	SPACE/FRONT-BACK	SPACE/SCALE	Total
89/D Specification	151	32	27	0	0	0	0	0	0	0	0	0	0	210
89/T Association	142	0	67	0	0	0	0	0	0	0	0	0	0	209
89/L Means	27	112	0	0	0	0	0	0	0	0	0	0	0	139
89/G Cause and/or Reason	26	66	38	5	0	0	0	0	0	2	0	0	0	137
89/N Manner	118	5	0	0	0	0	0	0	0	0	0	0	0	123
90/I Benefaction	0	45	64	0	0	0	8	0	5	0	0	0	0	122
90/B Instrument	73	45	1	0	0	0	0	0	0	0	0	0	0	119
90/A Agent	39	32	4	42	0	0	0	0	0	0	0	0	0	117
90/F Content	0	69	46	0	0	0	0	0	0	0	0	0	0	115
90/M Experiencer	8	74	3	0	0	0	0	0	0	0	0	0	0	85
89/U Dissociation	0	53	0	0	0	13	0	1	0	0	0	0	0	67
90/H Opposition	0	0	2	0	25	0	0	0	0	0	0	0	0	27
90/E Viewpoint Participant	0	2	16	0	0	0	0	0	0	0	0	0	0	18
89/W Contrast	9	0	0	0	0	0	0	4	0	0	0	0	0	13
89/Y Substance	5	0	0	0	0	0	0	1	0	0	0	0	0	6
Total	598	535	268	47	25	13	8	6	5	2	0	0	0	1507

Table 4.59: Multiple image schema domains, corpus frequencies.

The matrix of broad contextual domains (Table 4.59, p. 109) reveals interesting patterns related to the three most frequent image schemas of the list and corpus: (CONTAINER, LOCATION, and PATH). These three image schemas account for 54.05% of the list and 63.60% of the corpus. Along the horizontal axis, the three of them together account for five of the fifteen contextual domains: *89/G Cause and/or Reason*, *90/A Agent*, *89/D Specification*, *90/B Instrument*, and *90/M Experiencer*. In addition, the pairs drawn from among these three (CONTAINER-LOCATION, CONTAINER-PATH, and LOCATION-PATH) account for six additional contextual domains and only once non-exclusively.

- CONTAINER-LOCATION accounts for *89/T Association*.
- CONTAINER-PATH accounts for *89/L Means* and *89/N Manner*.
- LOCATION-PATH accounts for *90/I Benefaction*, *90/F Content*, and *90/E Viewpoint Participant*.

Only four of the broad contextual domains are unaffected by triples or pairs of these three image schemas: *89/U Dissociation*, *90/H Opposition*, *89/W Contrast*, and *89/Y Substance*.

Along the vertical axis, we find that each of the three most highly frequent image schemas (CONTAINER, LOCATION, and PATH) accounts for at least ten contextual domains, with PATH accounting for eleven. All broad domains intersect with at least one of these three image schemas.

In Table 4.60, we include the five contextual domains that are accounted for by all three image schemas along with their basic and contextual meanings.

Contextual Domain	Image Schema	Preposition	Contextual Meaning		Basic Meaning	
			Gloss	LN	Gloss	LN
<i>89/D Specification</i>	CONTAINMENT/CONTAINER	ἐν (<i>en</i>)	with regard to	89.5	in (location)	83.13
	SPACE/LOCATION	περί (<i>peri</i>)		89.6	around (location)	83.18
	SPACE/PATH	κατά (<i>kata</i>)		89.4	facing toward (location)	83.45
<i>89/G Cause and/or Reason</i>	CONTAINMENT/CONTAINER	πρός (<i>pros</i>)	because	89.7	to (extension)	84.18
		ἐν (<i>en</i>)		89.26	in (location)	83.13
		ἐπί (<i>epi</i>)		89.27	upon (location)	83.46
	SPACE/LOCATION	ὑπέρ (<i>hyper</i>)	because of	89.28	over	LSJ A.1.1
		περί (<i>peri</i>)	because	89.36	around (location)	83.18
		διά (<i>dia</i>)	on account of	89.26	through (extension)	84.29
SPACE/PATH	ἐκ (<i>ek</i>)	because of	89.25	out of (extension)	84.4	
	παρα (<i>para</i>)		89.25	from (extension)	84.5	
	ἐν (<i>en</i>)		90.6	in (location)	83.13	
<i>90/A Agent</i>	CONTAINMENT/CONTAINER	ἐπί (<i>epi</i>)	by	90.5	upon (location)	83.46
	SPACE/LOCATION	παρα (<i>para</i>)	for	90.3	at (location)	83.25
	SPACE/PATH	ἀπό (<i>apo</i>)	by	90.7	from (extension)	84.3
<i>90/B Instrument</i>	CONTAINMENT/CONTAINER	διά (<i>dia</i>)	with	90.4	through (extension)	84.29
	SPACE/LOCATION	ἐν (<i>en</i>)		90.10	in (location)	83.13
	SPACE/PATH	ἐπί (<i>epi</i>)		90.9	upon (location)	83.46
<i>90/M Experiencer</i>	CONTAINMENT/CONTAINER	διά (<i>dia</i>)	by	90.8	through (extension)	84.29
	SPACE/LOCATION	ἐκ (<i>ek</i>)		90.12	out of (extension)	84.4
	SPACE/PATH	ἐν (<i>en</i>)		90.16	in (location)	83.13
<i>90/M Experiencer</i>	CONTAINMENT/CONTAINER	μετά (<i>meta</i>)	to	90.56	in (location)	83.13
	SPACE/LOCATION	εἰς (<i>eis</i>)	with	90.60	among (location)	83.9
	SPACE/PATH	ἐπί (<i>epi</i>)	to	90.59	to (extension)	84.16
		πρός (<i>pros</i>)		90.57	toward (extension)	84.17
		πρός (<i>pros</i>)		90.58	to (extension)	84.18

Table 4.60: Meanings of subdomains accounted for by CONTAINER, LOCATION, and PATH.

Table 4.61 contains example phrases for each the preposition senses of *89/G Cause and/or Reason* for each of the contextual meanings listed in Table 4.60.

Greek	Transliteration	Translation	LN	Reference
ἐν ἐμοί	<i>en emoi</i>	'because of me'	89.26	Galatians 1:24
ἐπὶ τῆ χάριτι τοῦ θεοῦ	<i>epi te chariti tou theou</i>	'because of the grace of God'	89.27	1 Corinthians 1:4
ὑπὲρ ὑμῶν	<i>yper ymōn</i>	'for you'	89.28	Ephesians 1:16
περὶ πάντων ὑμῶν	<i>peri pantōn ymōn</i>	'concerning all of you'	89.36	1 Thessalonians 1:2
διὰ τὰ παραπτώματα ἡμῶν	<i>dia ta paraptōmata hēmōn</i>	'on account of our trespasses'	89.26	Romans 4:25
ἐκ ἀσθενείας	<i>ek astheneias</i>	'because of the power of God'	89.25	2 Corinthians 13:4
παρα τοῦτο	<i>para touto</i>	'because of this'	89.25	1 Corinthians 12:15

Table 4.61: Example phrases of *89/G Cause and/or Reason* accounted for by CONTAINER, LOCATION, and PATH.

Image Schemas and Narrow Contextual Domains

Domain/Subdomain	SPACE/PATH	SPACE/LOCATION	SPACE/SCALE	SPACE/UP-DOWN	MULTIPLICITY/PART-WHOLE	MULTIPLICITY/MATCHING	CONTAINMENT/CONTAINER	SPACE/FRONT-BACK	FORCE/RESISTANCE	SPACE/CENTER-PERIPHERY	CONTAINMENT/IN-OUT	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	Total
89/I Purpose	134	0	0	0	0	0	0	0	0	0	0	0	0	134
89/E Relations Involving Correspondences	131	0	0	0	0	0	0	0	0	0	0	0	0	131
90/C Source of Event or Activity	114	0	0	0	0	0	0	0	0	0	0	0	0	114
90/J Reason Participant	60	0	0	0	0	0	0	0	0	0	0	0	0	60
89/M Attendant Circumstances	0	46	0	0	0	0	0	0	0	0	0	0	0	46
89/H Result	38	0	0	0	0	0	0	0	0	0	0	0	0	38
13/B Change of State	38	0	0	0	0	0	0	0	0	0	0	0	0	38
13/A State	0	31	0	0	0	0	0	0	0	0	0	0	0	31
37/A Control, Restrain	0	0	0	24	0	0	0	0	0	0	0	0	0	24
63/D Part	0	0	0	0	15	0	0	0	0	0	0	0	0	15
78/E Up To, As Much As, To the Degree That	0	0	15	0	0	0	0	0	0	0	0	0	0	15
89/P Distribution	11	0	0	0	0	0	0	0	0	0	0	0	0	11
89/C Derivation	10	0	0	0	0	0	0	0	0	0	0	0	0	10
78/B More Than, Less Than	0	0	9	0	0	0	0	0	0	0	0	0	0	9
87/C High Status or Rank	0	0	0	4	0	0	0	0	0	0	0	0	0	4
89/F Basis	0	3	0	0	0	0	0	0	0	0	0	0	0	3
89/Q Addition	0	0	3	0	0	0	0	0	0	0	0	0	0	3
89/V Combinative Relation	0	2	0	0	0	0	0	0	0	0	0	0	0	2
57/J Exchange	0	0	0	0	0	2	0	0	0	0	0	0	0	2
59/H Add, Subtract	0	0	1	0	0	0	0	0	0	0	0	0	0	1
90/D Responsibility	0	1	0	0	0	0	0	0	0	0	0	0	0	1
59/B Much, Little	0	0	1	0	0	0	0	0	0	0	0	0	0	1
90/G Guarantor Participant with Oaths	0	0	0	0	0	0	1	0	0	0	0	0	0	1
36/D Follow, Be a Disciple	0	0	0	0	0	0	0	1	0	0	0	0	0	1
64 Comparison	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	537	83	29	28	15	2	1	1	0	0	0	0	0	696

Table 4.62: Single image schema domains, corpus frequencies.

As mentioned earlier, the matrix for narrow contextual domains can only show patterns along the vertical axis since no image schema occurs more than once along the horizontal axis. Narrow contextual domains reveal which image schemas are exclusive to a certain domain. If we look at the most frequent image schemas among these, we find that CONTAINER/CONTAINMENT is not among them; in fact it occurs only once in the corpus when it corresponds to a single image schema domain (i.e., *90/G Guarantor Participant with Oaths*). SPACE/SCALES takes its place alongside SPACE/PATH and SPACE/LOCATION, forming another grouping of highly frequent image schemas based on their broadness and frequencies in the list and corpus. SPACE/PATH accounts for nine narrow domains and both SPACE/SCALES and SPACE/LOCATION account for five. When ac-

counting for narrow contextual domains, these image schemas form 27.93% of the list and 29.46% of the corpus; the rest of the image schemas accounting for narrow domains cover 7.21% of the list and 2.13% of the corpus.

Broad and Narrow Contextual Domains: Conclusions

In the two subsections above, we observe the broadness/narrowness of four highly frequent image schemas: CONTAINER, LOCATION, PATH, and SPACE/SCALES. SPACE/SCALES does not account for any broad domains, but it is broad among narrow domains, covering five narrow domains. CONTAINER/CONTAINMENT is broad among broad domains, but narrow among narrow domains; it accounts for ten broad domains and one narrow domain (*90/G Guarantor Participant with Oaths*). SPACE/PATH and SPACE/LOCATION are broad among both broad and narrow domains.

Furthermore, we add to the general findings about the most highly frequent image schemas (CONTAINER, LOCATION, and PATH) by considering the semantic domains which they account for.

First, they overlap in accounting for common contextual meanings. The most obvious example of this is the group of domains conveying various nuances of *causality* (cf. Section 4.4, p. 70): *89/L Means*, *89/G Cause and/or Reason*, *90/B Instrument*, *90/A Agent*, *89/N Manner*, and *90/C Source of Event or Activity*. The grouping of these together accounts for 31.18% of the corpus and 22.52% of the list (687 and 25 instances, respectively). Outside of these domains, these image schemas account for 2.81% of the corpus and 2.70% of the list (61 and 3 instances, respectively). Causal domains, with the exception of *90/C Source of Event or Activity* can be construed in various ways which allows them to be based on various combinations of these three different image schemas.

Second, PATH and LOCATION can account for certain domains in a mutually exclusive manner. Two attributes of PATH that make it correspond to the domains it exclusively represents are its directionality and motion. Although it combines with LOCATION and CONTAINER for *89/D Specification*, it exclusively corresponds to *89/I Purpose*. *Purpose* implies both a start point and an end point because at a given point in time it points to a future point at which what is intended is actualized, and thus, requires motion and direction to reflect the implied temporal shift. *Specification* can be accounted for with location and containment, but the profiling of the end-point of PATH can account for it. Furthermore, PATH exclusively accounts for two other domains related to *Purpose*: *13/B Change of State* and *89/H Result*. A change of state is necessary to fulfill the purpose, which at the end becomes the result. The motion from the start point of PATH allows it to exclusively account for *90/C Source of Event or Activity* and *89/C Derivation*. On the other hand, the static nature of LOCATION allows it to exclusively account for *13/A State* and *89/M Attendant Circumstances*.

Third, CONTAINER falls into general use because it carries with it a general

explanation for how it accounts for various domains. CONTAINER constrains an effect within a cause; it constrains an action within an agent, instrument, or manner; it constrains a state or result within a reason, cause, or means. It also associates and specifies by constraining. Even its accounting of a narrow domain *90/G Guarantor Participant with Oaths* is the constraining the oath to a guarantor.

Finally, this analysis allows us to make a notable discovery that SCALE is highly frequent with respect to narrow domains. SCALE is an extension of PATH that has the added feature of quantity; it is this distinctive feature that makes it highly frequent among the narrow domains rooted in quantity: *78/E Up To, As Much As, To the Degree That, 78/B More Than, Less Than, 89/Q Addition, 59/B Much, Little, and 59/H Add, Subtract*.

The common thread that runs through these observations is that the nature/configuration of an image schema combines with the construal of a contextual meaning to allow the image schema and the contextual meaning to correspond. A contextual meaning that is construed in various ways draws upon multiple image schemas (i.e., causative contextual domains) while a specialized meaning is limited to a single image schema (i.e., quantity corresponds to SCALE). At the same time, an image schema that is general (i.e., LOCATION), has multiple applications (i.e., CONTAINER), or has multiple components and aspects (i.e., PATH), tends to be the basis of multiple construals while a specialized image schema tends to be nearly synonymous with a given meaning.

4.7.2 Image Schemas and Domains of Basic Meaning

In our MIP analysis, contextual meanings are mapped to basic meanings and accounted for with image schemas³². In addition to observing how image schemas account for contextual meanings, we observe how basic meanings are related to image schemas. This is motivated by the desire to verify whether image schemas correspond to basic meanings in a straight forward manner that mirrors the basic meaning. Correspondences that are “straight forward” are ones where the image schema is an obvious representation of the basic meaning (e.g., ‘to’/PATH, ‘in’/CONTAINER, and ‘at’/LOCATION. In our findings we see that for the most part this is the case, but there are cases where the correspondences are less straight forward; the three cases we identify are described and discussed accordingly.

Unlike our analysis of contextual meaning, we focus the overarching top-level domains of *83 Spatial Positions*, *84 Spatial Extensions*, and *63 Whole, Unite, Part, Divide*, and consider their subdomains as necessary. *83 Spatial Positions* indicates location, *84 Spatial Extensions* implies motion, and *63 Whole, Unite,*

³²Appendix C.7 (p. 173) contains the basic frequency tables for individual domains as well as their intersections.

Part, Divide has a single instance that indicates separation³³.

³³This domain is unique in that it exists as a contextual domain and as a basic domain.

Before analyzing the relation between basic meanings and image schemas, we briefly consider the distributions of the basic domains and subdomains. *83 Spatial Positions* and *84 Spatial Extensions* have a near equal corpus frequency; *83 Spatial Positions* has the higher list frequency among the two. Among basic subdomains, those having the top four list and corpus frequencies form 63.06% of the list and 83.52% of the corpus. The most frequent is *83 Spatial Positions/C Among, Between, In, Inside* (33.68% corpus; 21.68% list). The other three are all from the *84 Spatial Extensions* domain: *B Extension To a Goal* (21.62% corpus; 19.47% list), *A Extension From a Source* (11.71% corpus; 12.61% list), and *C Extension Along a Path* (18.66% corpus; 7.21% list).

For the most part, the correspondences between basic meanings and image schemas are straight forward especially in the case of CONTAINER/CONTAINMENT and SPACE/PATH. ἐν (*en*, ‘in’) naturally corresponds to CONTAINMENT/CONTAINER. πρὸς (*pros*, ‘to’), παρὰ (*para*, ‘from’), ἐκ (*ek*, ‘out of’), διὰ (*dia*, ‘through’), and κατὰ (*kata*, ‘along’) naturally correspond to SPACE/PATH, with each meaning corresponding to or profiling a certain part of the image schema; start point, path, and end point are profiled by the domains of *84/A Extension From a Source*, *84/C Extension Along a Path*, and *84/B Extension To a Goal*. However, the correspondence of an image schema to a basic meaning is not as straight forward for the following cases:

- when the basic meaning is related to location (generalized location)
- when the contextual meaning has a corresponding image schema that is based on (or extends) a spatial image schema (image schema extension)
- when a basic meaning indicating location has a corresponding image schema indicating extension (location to extension)

These three cases are explained in the subsections below.

Generalized Location

The choice between SPACE/LOCATION and a more specific image schema requires one to consider the essential-ity of the more specific notion to the metaphoric meaning. The following are the specific location related basic domains and their naturally corresponding image schemas.

- *83/I Above, Below* – SPACE/UP-DOWN
- *83/D Around, About, Outside* – SPACE/CENTER-PERIPHERY
- *83/F In Front Of, Behind* – SPACE/FRONT-BACK

As indicated by their names, each image schema highlights a contrast that exists in the corresponding basic meaning (up vs. down, center vs. periphery,

and front vs. back). This contrast, however, contributes to the basic meaning to various degrees. Certain prepositions within these semantic domains simply delimit a location through the contrast rather than creating a contrast between two entities. For example, ὑπέρ (*hyper*, ‘over’, *LSJ A.I.1*) has four contextual meanings: ‘above’ (*status*, 87.30), ‘because of’ (*reason*, 89.28), ‘about’ (*content*, 90.24), and ‘on behalf of’ (*benefaction*, 90.36). For the meanings related to status, SPACE/UP-DOWN is cited because it creates a contrast of high status vs. low status. For the other meanings, SPACE/LOCATION is cited. In the case of ‘because of’ and ‘about’, the reason or content is being delimited using the preposition as a marker of location. In the case of ‘on behalf of’ (*benefaction*), the benefactor covers (i.e., is over) the beneficiary (Luraghi, 2003, p. 220). The same benefaction metaphor exists for the preposition πρό (*pro*, ‘in front of’) where the benefactor is in front of the beneficiary (Luraghi, 2003, p. 156). Thus, the metaphor is based on location, or spatial position, rather than the contrast. A parallel reasoning can be found in the examples given for the STATES ARE LOCATIONS metaphor, where the specific notion of containment (i.e., ‘in love’) is generalized to location and accompanies general meanings of location (e.g., ‘at rest/play’).

Image Schema Extension

The image schema categories which are beyond spatial, SCALE, FORCE and MULTIPLICITY, correspond to spatial notions which they extend (Table 4.63).

Quantity is a notion that is rooted in space in two ways, both stated via metaphors: LINEAR SCALES ARE PATHS and MORE IS HIGHER³⁴ (Lakoff, 1993). These have the obvious matching image schemas of SPACE/PATH and UP-DOWN, respectively. There are two variables at play when choosing the appropriate base schemas for SCALE for a given basic meaning: (1) whether the meaning conveys motion (extension) or position (location) and (2) the orientation (vertical or horizontal). A basic meaning of horizontal motion (i.e., ‘to’) presents PATH as the basis of SCALE; this includes all basic meanings of motion: εἰς (*eis*)/84.16, ἐπί (*epi*)/84.17, ἕως (*heōs*)/84.19, μέχρι (*mechri*)/84.19, and πρός (*pros*)/84.18. Such is also the case for the basic meanings of horizontal position: ‘near’ (i.e., παρά, *para*/83.25) and ‘beyond’ (παρά (*para*)/*LSJ.para.C.III*). Here, the connection between SCALES and LINEAR PATHS is obvious. Basic meanings of vertical position naturally map SCALE to UP-DOWN: ‘on, upon’ (i.e., ἐπί, *epi*/83.46) and ‘above’ (i.e., ὑπέρ, (*hyper*)/*LSJ.hyper.A.I.1*). For all metaphoric prepositions where SCALE accounts for a metaphor, a more basic intermediary image schema is identified.

FORCE/RESISTANCE corresponds to subdomains in both 83 *Spatial Positions* (κατά, *kata*, ‘opposite’) and 84 *Spatial Extensions* (πρός, *pros*, ‘against’). In

³⁴Also known as MORE IS UP/LESS IS DOWN.

the case of ἐπί (*epi*), RESISTANCE accounts for a basic meaning of ‘toward’ that is the closest match since it conveys motion toward, but not opposing motion. FORCE/ENABLEMENT corresponds to 84 *Spatial Extensions* and accounts for this same meaning of ἐπί (*epi*). In the case of RESISTANCE, contexts of wrath and resistance determine the meaning of opposition (Table 4.65), and in the case of ENABLEMENT, the context of blessing determines the meaning of benefaction (Table 4.66). The choice of these FORCE image schemas is influenced by the contextual meaning rather than the basic meaning.

Whereas in most cases a single image schema connects the basic meaning to a contextual meaning, in these cases there is an intermediate SPACE image schema that connects the basic meaning to a FORCE image schema which is connected to the contextual meaning. As already discussed (pp. 12, 106), ENABLEMENT is based on SPACE/PATH; it adds to path, the notion of a force that is moving an object along a path from point A to point B. RESISTANCE in its dynamic sense is also based on PATH; the object opposing the motion of another is doing so along a path. In its static sense, RESISTANCE is based on LOCATION; an object is located at a point that impedes the progress of another.

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
FORCE/RESISTANCE	κατά (<i>kata</i>)	against (opposition)	90.31	opposite (location)	83.44
	πρός (<i>pros</i>)		90.33	against (extension)	84.23
FORCE/ENABLEMENT	ἐπί (<i>epi</i>)	for (benefaction)	90.34 90.40	toward (extension)	84.17

Table 4.63: Example meanings of FORCE image schemas.

Domain/ Subdomain	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
83 <i>Spacial Positions/ G Opposite, Over Against</i>	κατά (<i>kata</i>)	against (opposition)	90.31	opposite (location)	83.44
84 <i>Spacial Extensions/ B Extension To a Goal</i>	πρός (<i>pros</i>)		90.33	against (extension)	84.23
	ἐπί (<i>epi</i>)	90.34	toward (extension)	84.17	

Table 4.64: Meaning examples FORCE/RESISTANCE and 90/*Opposition*.

Reference/Info	Verse
Romans 1:18	αποκαλυπτεται γαρ οργη θεου απ' ουρανου [επι πασαν ασεβειαν και αδικιαν ανθρωπων]των την αληθειαν εν αδικια κατεχοντων
ἐπί (<i>epi</i>)	
<i>opposition</i>	
Context: 90.34 'against'	<i>apokalyptetai gar orgē theou ap' ouranou</i> [epi <i>pasan asebeian kai adikian anthrōpōn</i>] <i>tōn tēn alētheian en adikia katechontōn</i>
Basic: 84.17 'toward'	
FORCE/RESISTANCE	
	For the wrath of God is revealed from heaven [against all impiety and unrighteousness of people], who suppress the truth in unrighteousness,
Romans 2:2	οιδαμεν δε οτι το κριμα του θεου εστιν κατα αληθειαν [επι τους τα τοιαυτα πρασσοντας]
ἐπί (<i>epi</i>)	
<i>opposition</i>	
Context: 90.34 'against'	<i>oidamen de oti to krima tou theou estin kata alētheian</i> [epi <i>tous ta toiauta prassontas</i>]
Basic: 84.17 'toward'	Now we know that the judgment of God is according to truth [against those who do such things].
FORCE/RESISTANCE	
2 Thessalonians 2:4	ο αντικειμενος και υπεραιρομενος [επι παντα λεγομενον θεον η σεβασμα]ωστε αυτον εις τον ναον του θεου καθισαι αποδεικνυντα εαυτον οτι εστιν θεος
ἐπί (<i>epi</i>)	
<i>opposition</i>	
Context: 90.34 'against'	<i>o antikeimenos kai yperairomenos</i> [epi <i>panta legomenon theon ē sebasma</i>] <i>ōste auton eis ton naon tou theou kathisai apodeiknynta eauton oti estin theos</i>
Basic: 84.17 'toward'	
FORCE/RESISTANCE	
	who opposes and who exalts himself [over every so-called god or object of worship], so that he sits down in the temple of God, proclaiming that he himself is God.

Table 4.65: Example verses of contexts that determine a negative contextual meaning of *opposition* for a neutral basic meaning of 'toward'.

Reference/Info	Verse
Romans 4:9	ο μακαρισμος ουν ουτος [επι την περιτομην]η και [επι την ακροβυστιαν] λεγομεν γαρ ελογισθη τω αβρααμ η πιστις εις δικαιοσυνην
ἐπί (<i>epi</i>)	
<i>benefaction</i>	
Context: 90.40 ‘for’	<i>o makarismos oun outos [epi tēn peritomēn] ē kai [epi tēn akrobystian] legomen gar elogisthē tō abraam ē pistis eis dikaiosynēn</i>
Basic: 84.17 ‘toward’	
FORCE/ENABLEMENT	
	Therefore, is this blessing [for those who are circumcised], or also [for those who are uncircumcised]? For we say, “Faith was credited to Abraham for righteousness.”

Table 4.66: Example verse of a context that determines a positive contextual meaning of *benefaction* for a neutral basic meaning of ‘toward’.

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN/LSJ
MULTIPLICITY/PART-WHOLE	χωρίς (<i>chōris</i>)	without	89.120	separately	63.31
MULTIPLICITY/PART-WHOLE	ἐκ (<i>ek</i>)	one of (part-whole)	63.20	out of (extension)	84.4
MULTIPLICITY/MATCHING	ἀντί (<i>anti</i>)	in place of	57.145	opposite	LSJ A.I
MULTIPLICITY/LINKAGE	ἀντί (<i>anti</i>)	for this reason	89.24	opposite	LSJ A.I

Table 4.67: Example meanings of MULTIPLICITY image schemas.

The image schemas from the MULTIPLICITY category that are cited in this study mainly account for spatial meanings. Table 4.67 (p. 119) contains a full listing of the meanings accounted for in this category. PART-WHOLE accounts for a spatial meaning ‘out of’ for ἐκ (*ek*, 84 *Spatial Extensions/Extension From a Source*), which elsewhere corresponds to the SPACE/PATH image schema. The other meaning it corresponds to is χωρίς (*chōris*, ‘separately’) of the domain 63 *Whole, Unite, Part, Divide/G Separate*. The original meaning of this preposition is spatial, but by the time of the NT it is used as a comitative, hence it is not classified as spatial in Louw-Nida, but it can be re-classified as part of 83 *Spatial Positions/D Around, About, Outside* on this basis, especially since there is a locative usage cited by BDAG³⁵. MATCHING and LINKAGE account for the same meaning, a historically older meaning of ἀντί (*anti*) meaning ‘opposite’ which is defined in *LSJ* and maps to the domain of 83 *Spatial Positions/G Opposite, Over Against, Across From, Offshore From*. This basic meaning leaves *linkage* and *matching* implicit. As with the above FORCE image schemas, we are able to place the SPACE image schemas of PATH and LOCATION as intermediate links between the basic meaning and MULTIPLICITY image schemas.

Location to Extension

SPACE/PATH and SPACE/SCALE are equally broad, but in different ways. SPACE/PATH corresponds to three subdomains of extension and one subdomain of location; conversely, SPACE/SCALE corresponds to three subdomains of location and one subdomain of extension. Both of these image schemas would be expected to be associated with basic meanings of extension, but are in certain instances associated with basic meanings of position. In the case of SPACE/PATH, the basic meaning of ‘toward’ is positional with an additional element of directionality (i.e., facing a certain direction). In the case of SPACE/SCALE, location implies motion or is a result of motion; this representation corresponds well to contextual meanings that are related to quantities (add or subtract) and degrees (reaching a degree of...). Table 4.68 contains all the basic meanings associated with SPACE/SCALE; Table contains example verses where SPACE/SCALE accounts for metaphoric meanings of *addition* and *quantity* that have basic meanings of position.

Finally, we make general observations about highly frequent image schemas discussed in the matrix analysis of contextual domains in the previous section (4.7.1, p. 107): SPACE/PATH, SPACE/LOCATION, and CONTAINMENT/CONTAINER.

The correspondence of SPACE/PATH to the three 84 *Spatial Extensions* subdomains accounts for most image schema to basic meanings of motion; 1049 out of 1098 in the corpus (95.54%) and 35 out of 46 on the list (76.09%). SPACE/LOCATION is the broadest image schema since it is cited in the place of

³⁵Definition 2.b.α., *outside (of) someth.* cites χωρίς τοῦ σώματος, *chōris tou sōmatos*, ‘outside of the body’ 2 Cor 12:3.

Domain	Subdomain	Preposition	Basic Meaning	
			Gloss	LN/LSJ
83 Spatial Positions	<i>H On, Upon, On the Surface Of</i>	ἐπί (<i>epi</i>)	upon (location)	83.46
	<i>E At, Beside, Near, Far</i>	πρός (<i>pros</i>)	at (location)	83.24
		παρά (<i>para</i>)	at (location)	83.25
	<i>I Above, Below</i>	ὑπέρ (<i>hyper</i>)	beyond	LSJ A.I.1
	<i>J Beyond, On the Other Side Of</i>	παρά (<i>para</i>)	beyond	LSJ C.III
84 Spatial Extensions	<i>B Extension To a Goal</i>	εἰς (<i>eis</i>)	to (extension)	84.16
		ἐπί (<i>epi</i>)	toward (extension)	84.17
		μέχρι (<i>mechri</i>)	as far as	84.19

Table 4.68: Basic meaning examples of correspondences to SPACE/SCALE.

more specific image schemas when the basic meaning refers to location in general, as discussed above (p. 115).

CONTAINMENT/CONTAINER, is not as broad as the others; it corresponds to two *83 Spacial Positions* subdomains. The first, *C Among, Between, In, Inside*, is obvious and forms the majority of the cases (509 out of 518 in the corpus, and 11 out of 13). The second, *83/J Beyond, On the Other Side Of*, which is less obvious and less frequent, is based on παρά (*para*, ‘beyond’). It uses the container as a point of reference so that ‘beyond’ is defined as what lies outside the container³⁶. The correspondence between the basic meaning and image schema is not as easy to grasp because ‘in/inside’ and ‘out/outside’ most naturally convey the notion of containment; ‘beyond’ less naturally applies and seems (1) to refer to a going past a point on a line or (2) to point to the other side of a perpendicular line rather than to the outside of a container. Regardless of how naturally ‘beyond’ corresponds to containment or how difficult it is to grasp the correspondence, a direct correspondence does exist.

The above discussed difficulties and distinctions in relating the basic meaning to the image schema, then, consist of generalized location, image schema extension, and location and extension. These amount to 8.76% of the corpus (193 instances) and 16.22% of the list (18 instances); these frequencies are detailed in Table 4.70. The majority of these apply to the four most highly frequent image schemas: 8.22% (183 instances) of the corpus and 12.61% of the list (14 instances). Thus, it can be concluded that the majority of the corpus and the list of preposition senses have a simple correspondence between the basic meaning and its related image schema with most of the complications of correspondence taking place in the four most highly frequent image schemas. However, it is significant to identify the image schema because it identifies the basis of the metaphor in cognitive terms.

³⁶The relation of ‘beyond’ and CONTAINER to the contextual meanings of *contrast* and *opposition* is explained in detail on page 94 in a section covering the various meanings of παρά (*para*).

Reference/Info	Verse
2 Corinthians 7:13	δια τουτο παρακεκλημεθα [επι /δε/ τη παρακλησει ημων]περισσοτεως μαλλον εχαρημεν επι τη χαρα τιτου οτι αναπεπαυται το πνευμα αυτου απο παντων υμων
ἐπί (<i>epi</i>)	
<i>addition</i>	
Context: 89.101 ‘and’	<i>dia touto parakeklēmetha [epi /de/ tē paraklēsei ēmōn]</i>
Basic: 83.46 ‘upon’	<i>perissotērōs mallon echarēmen epi tē chara titou oti</i>
SPACE/SCALE	<i>anapepautai to pneuma autou apo pantōn ymōn</i>
	Because of this we have been encouraged, and [in addition to our encouragement], we rejoiced much more over the joy of Titus, because his spirit had been refreshed by all of you.
Philippians 2:27	και γαρ ησθενησεν παραπλησιον θανατω αλλα ο θεος ηλεησεν αυτον ουκ αυτον δε μονον αλλα και εμε ινα μη λυπην [επι λυπην]σχω
ἐπί (<i>epi</i>)	
<i>addition</i>	
Context: 89.101 ‘and’	<i>kai gar ēsthenēsen paraplēsion thanatō alla o theos ēlēesen auton ouk auton de monon alla kai eme ina mē</i>
Basic: 83.46 ‘upon’	<i>lypēn [epi lypēn] schō</i>
SPACE/SCALE	
	For indeed he was sick, coming near to death, but God had mercy on him and not on him only, but also on me, so that I would not have grief [upon grief].
Colossians 3:14	[επι πασιν /δε/ τουτοις]την αγαπην ο εστιν συνδεσμος της τελειοτητος
ἐπί (<i>epi</i>)	
<i>addition</i>	
Context: 89.101 ‘and’	<i>[epi pasin /de/ toutois] tēn agapēn o estin syndesmos tēs teleiotētōs</i>
Basic: 83.46 ‘upon’	And [to all these things] add love, which is the bond of perfection.
SPACE/SCALE	
2 Corinthians 11:24	υπο ιουδαιων πεντακις τεσσαρακοντα [παρα μιαν]ελαβον
παρά (<i>para</i>)	
<i>quantity</i>	
Context: 59.76 ‘less’	<i>ypo ioudaiōn pentakis tesserakonta [para mian] elabon</i>
Basic: 83.25 ‘at’	Five times I received at the hands of the Jews forty lashes
SPACE/SCALE	[less one].

Table 4.69: Example verses of location meanings accounted for with SPACE/SCALE.

Complexity	Image Schema	Basic Domain	List Freq.	Corpus Freq.
Generalized location	SPACE/LOCATION	83/I Above, Below	3	89
		83/D Around, About, Outside	3	44
		83/F In Front Of, Face To Face, In Back Of, Behind	3	10
Image schema extension	FORCE/ENABLEMENT	84/B Extension To a Goal	1	5
	FORCE/RESISTANCE		1	5
	MULTIPLICITY/LINKAGE	83/G Opposite, Over Against, Across From, Offshore From	1	2
	MULTIPLICITY/MATCHING		1	2
Location to extension	SPACE/PATH	83/G Opposite, Over Against, Across From, Offshore From	1	23
	SPACE/SCALE	83/I Above, Below	1	7
		83/H On, Upon, On the Surface Of	1	3
		83/J Beyond, On the Other Side Of	1	2
		83/E At, Beside, Near, Far	1	1
Total		18	193	

Table 4.70: Complex correspondences between image schemas and basic domains.

4.8 Related Metaphors

In addition to image schema identification, the MIP analysis is augmented with the step of identifying a conceptual metaphor that is most relevant to the image schema and the corresponding mappings between the basic and metaphoric meaning. For our purposes, relevance is the metaphor’s ability to explain, or contribute to the explanation of, the image schema based mapping found in the analysis. Some metaphors identified as relevant directly and fully explain the mapping, while others shed light on an aspect of it, or are the basis for an analogy that explains it. The type of relevance a metaphor has depends on the image schema and mappings to which it is being related. Below we illustrate the types of relevant metaphors as well as how the type of relevance differs for the same metaphor; this is followed by an overview of the frequencies and distributions of the metaphors in the list and corpus.

MEANS OF CHANGE IS PATH OVER WHICH MOTION OCCURS is a highly explanatory metaphor for the causative meanings of $\delta\iota\acute{\alpha}$ (*dia*) listed in Table 4.71. Although it only refers to *means*, it is relevant to the rest of this preposition’s causative meanings (*reason*, *extension*, *instrument*, *agent*, and *reason participant*) as they are grouped under the same umbrella (as discussed on p. 70). Furthermore, the metaphor is part of the EVENT STRUCTURE metaphor system and categorized under ‘causation (location case)’.

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/PATH	$\delta\iota\acute{\alpha}$ (<i>dia</i>)	on account of (reason)	89.26	38	through (extension)	84.29
		through (means)	89.76	85		
		by (instrument)	90.8	44		
		by (agent)	90.4	28		
		because of (reason participant)	90.44	60		

Table 4.71: Causative meanings of $\delta\iota\acute{\alpha}$ (*dia*).

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
SPACE/LOCATION	$\acute{\epsilon}\pi\acute{\iota}$ (<i>epi</i>)	concerning (content)	90.23	14	upon (location)	83.46
	$\pi\epsilon\rho\acute{\iota}$ (<i>peri</i>)	about (content)	90.24	15	around (location)	83.18
	$\acute{\upsilon}\pi\acute{\epsilon}\rho$ (<i>hyper</i>)		90.24	16	over	LSJ A.I.1
	$\pi\rho\acute{\omicron}\varsigma$ (<i>pros</i>)		90.25	1	at (location)	83.24

Table 4.72: Contextual meanings of *content* where SUBJECTS ARE AREAS is directly relevant.

SUBJECTS ARE AREAS is an example of a metaphor that fully explains a mapping in one instance and part of a mapping in another. This metaphor is fully explanatory to the mapping between *content* (e.g., ‘about’) and *location* (e.g., ‘at’) that are accounted for with SPACE/LOCATION (Table 4.72). The explanation is obvious because AREA is equivalent to *location*/LOCATION. The same metaphor can be partially relevant to the same meaning that is accounted for by a different image schema and mapping. SPACE/PATH accounts for the *content* meaning of εἰς (*eis*, ‘with reference to’) which has the basic meaning of ‘to’. The meaning is based on a directional path that points to a destination. So in this case, the metaphor explains the destination as the subject area, but does not address the path pointing to it. Thus, it explains part of the mapping and it is partially relevant. A fully explanatory metaphor in this case, would on that states “referencing is pointing”, but we do not have such a stated metaphor in our catalogue or referenced sources. SUBJECT ARE AREAS allows us to conclude that “referencing is pointing” because a path can point to an AREA and that makes it partially relevant.

Finally, OBLIGATIONS/AGREEMENTS ARE CONTAINERS is an example of a metaphor that serves as the basis of an analogy to explain a mapping. Two of the meanings of παρά (*para*), *contrast* (‘instead of’) and *opposition* (‘contrary to’), have the basic meaning of ‘beyond’ (Table 4.73) and are accounted for with CONTAINER. When “obligations” and “agreements” are abstracted to “expectations”, then alternatives (*contrast*) and contraries (*oppositions*) are violations of expectations. Such violations are construed as being beyond the confines of the container that represents them. Thus, by substituting terms in the metaphor and the definitions of the meanings, then we have an analogical explanation of the relation of these meanings to the CONTAINER image schema: EXPECTATIONS ARE CONTAINERS and contraries/alternatives are violations of expectations; going beyond the confines of the container is a violation.³⁷

Image Schema	Preposition	Contextual Meaning			Basic Meaning	
		Gloss	LN	Freq.	Gloss	LN
CONTAINMENT/CONTAINER	παρά (<i>para</i>)	instead of (contrast)	89.132	3	beyond (location)	LSJ C.III
		contrary to (opposition)	89.137	6		

Table 4.73: Metaphoric meanings of παρά (*para*) explained with OBLIGATIONS/AGREEMENTS ARE CONTAINERS through analogy.

³⁷A more thorough explanation is found in the overview of prepositions (p. 94).

The vast majority of metaphoric meanings have relevant metaphors (Table 4.74). We consider the individual metaphors as well as the metaphor system, grouping, or category that these metaphors fall under. Most of the metaphors are found in The Master Metaphor List which provides the overarching category. ISCAT, the image schema catalog, is referenced for two metaphors related to containment that are ascribed to Tolaas, and are grouped as CONTAINER. Two additional metaphors from Lakoff and Johnson (1980b) are cited, THE OBJECT COMES OUT OF A SUBSTANCE and HIGH STATUS IS UP, LOW STATUS IS DOWN are cited; the categories listed for them are not official names, rather they are derived from their descriptions. Table 4.75 contains a listing of the groupings and their frequencies and distributions. Nearly two thirds of the metaphors (17 of 28) belong to the EVENT STRUCTURE metaphor system, they occupy 54.05% of the list and 45.67% of the corpus. MENTAL EVENTS and CONTAINER are 2nd and 3rd in list frequency and switch rank in corpus frequency. These three groups account for 81.98% of the list and 83.80% of the corpus.

	List Freq.	Corpus Freq.	% List	% Corpus
With Relevant Metaphors	101	2043	90.99%	92.74%
Without Relevant Metaphors	10	160	9.01%	7.26%
<i>Total</i>	111	2203	100.00%	100.00%

Table 4.74: Contextual meanings and relevant metaphors.

Metaphor System	Symbol	Metaphors	List Freq.	Corpus Freq.	% List	% Corpus
EVENT STRUCTURE	*	17	60	1006	54.05%	45.67%
CONTAINER (Tolaas)	☐	1	11	590	9.91%	26.78%
MENTAL EVENTS	†	3	20	239	18.02%	10.85%
RESPONSIBILITIES	§	3	4	129	3.60%	5.86%
CONDUIT METAPHOR	‡	1	3	74	2.70%	3.36%
ORIENTATIONAL	○	1	2	4	1.80%	0.18%
CAUSATION-MAKING	⊥	1	1	1	0.90%	0.05%
<i>Total</i>		27	101	2043	90.99%	92.74%

Table 4.75: Metaphor systems, categories, and groupings.

In further statistical analysis, each metaphor is paired with the corresponding image schema of the contextual meaning. The metaphors are divided into two tables: Table 4.76 contains the image schema/metaphor pairs that account for multiple contextual meanings (broad pairs); Table 4.77 contains the pairs accounting for a single contextual meaning (narrow pairs). These tables show the individual

list and corpus frequencies of the image schema/metaphor pairs. Most of the related metaphors are associated with a single image schema. The exceptions are *SUBJECTS ARE AREAS* and *COMPLIANCE IS FOLLOWING*; both are related to two image schemas (Table 4.79). Table 4.78 contains the frequencies of image schemas accounting for contextual meanings not having relevant metaphors. Among these, there are two image schemas that do not have associated metaphors: *MULTIPLICITY/MATCHING* and *MULTIPLICITY/PART-WHOLE*; the rest have corresponding metaphors for other meanings they account for.

CONTAINMENT/CONTAINER-BEING RESTRICTED IS BEING IN A CONTAINER (⊞) is by far the most frequent metaphor in the corpus, having a distribution of 26.78%. The five metaphors that follow it are related to *SPACE/PATH*; these combine for 36.95% of the corpus; the top four among them belong to the *EVENT STRUCTURE* system. The two metaphors that follow, *SUBJECTS ARE AREAS* (†) and *ATTRIBUTION IS CO-LOCATION* (*), are related to *SPACE/LOCATION*; they combine for 7.67% of the corpus, but they have the two highest list frequencies, accounting for 20.72% of the corpus.

Among the aforementioned pairing, *CONTAINMENT/CONTAINER-BEING RESTRICTED IS BEING IN A CONTAINER* is tied for the second highest list frequency (11, 9.91%), and among the *SPACE/PATH* related metaphors, *SPACE/PATH-... PREREQUISITE FOR CHANGE IS SOURCE ...* (*) has the second highest list frequency. *SPACE/PATH-COMPLIANCE IS FOLLOWING* is the only narrow image schema/metaphor pair with a corpus frequency that is comparable with its broad counterparts; it ranks sixth among all related metaphors with a distribution of 5.72%.

Based on the above, we observe that (1) the most highly frequent metaphors, whether in the list or the corpus, are associated with the three most highly frequent image schemas (*CONTAINER*, *PATH*, and *LOCATION*), and (2) the most highly frequent systems are represented among them: *EVENT STRUCTURE* metaphors are related to these highly frequent image schemas; *MENTAL EVENTS* contains *SPACE/PATH* and *SPACE/LOCATION*; *CONTAINER* (Tolaas) only contains *CONTAINMENT/CONTAINER* among these three. Table 4.80 contains the intersections of metaphor systems/categories and image schemas. It shows how far encompassing *EVENT STRUCTURE* in its inclusion of image schemas.

Image Schema	Relevant Metaphor (System Symbol)	List Freq.	Corpus Freq.	% List	% Corpus
CONTAINMENT/CONTAINER	BEING RESTRICTED IS BEING IN A CONTAINER (回)	11	590	9.91%	26.78%
SPACE/PATH	MEANS OF CHANGE IS PATH ... (*)	5	255	4.50%	11.58%
SPACE/PATH	... PREREQUISITE FOR CHANGE IS SOURCE ... (*)	10	189	9.01%	8.58%
SPACE/PATH	PURPOSES ARE DESTINATIONS (*)	3	134	2.70%	6.08%
SPACE/PATH	CHANGE IS MOTION (*)	5	129	4.50%	5.86%
SPACE/PATH	SUBJECTS ARE AREAS (†)	5	107	4.50%	4.86%
SPACE/LOCATION	SUBJECTS ARE AREAS (†)	11	91	9.91%	4.13%
SPACE/LOCATION	ATTRIBUTION IS CO-LOCATION (*)	12	78	10.81%	3.54%
SPACE/PATH	IDEAS ARE PROJECTILES (‡)	3	74	2.70%	3.36%
SPACE/UP-DOWN	CONTROL IS UP (*)	4	71	3.60%	3.22%
SPACE/LOCATION	TIME IS A LANDSCAPE WE MOVE THROUGH (*)	2	46	1.80%	2.09%
SPACE/LOCATION	BASIC ASSUMPTIONS OF A THEORY ARE FOUNDATIONS (†)	3	39	2.70%	1.77%
SPACE/SCALE	LINEAR SCALES ARE PATHS (*)	8	19	7.21%	0.86%
FORCE/RESISTANCE	EXTERNAL EVENTS ... ARE OPPOSING FORCES (*)	2	12	1.80%	0.54%
SPACE/SCALE	MORE IS HIGHER (*)	1	3	0.90%	0.14%
CONTAINMENT/CONTAINER	AGREEMENTS ARE CONTAINERS (*)	2	9	1.80%	0.41%
SPACE/UP-DOWN	HIGH STATUS IS UP, LOW STATUS IS DOWN (◡)	2	4	1.80%	0.18%
<i>Total</i>		90	1854	81.08%	84.16%

Table 4.76: Multiple sense image schema/metaphor pairs.

Image Schema	Relevant Metaphor (System Symbol)	List Freq.	Corpus Freq.	% List	% Corpus
SPACE/PATH	COMPLIANCE IS FOLLOWING (§)	1	126	0.90%	5.72%
SPACE/LOCATION	STATES ARE LOCATIONS (*)	1	31	0.90%	1.41%
FORCE/RESISTANCE	OBSTACLES TO ACTION ARE OBSTACLES TO MOTION (*)	1	13	0.90%	0.59%
SPACE/CENTER-PERIPHERY	IMPORTANCE IS CENTRALITY (*)	1	8	0.90%	0.36%
FORCE/ENABLEMENT	BENEFICIAL EVENTS ARE FORCES ... (*)	1	5	0.90%	0.23%
MULTIPLICITY/LINKAGE	CAUSES AND EFFECTS ARE LINKED OBJECTS (*)	1	2	0.90%	0.09%
SPACE/LOCATION	EXISTENCE IS A LOCATION (*)	1	2	0.90%	0.09%
SPACE/PATH	PERCEPTION IS RECEPTION (†)	1	2	0.90%	0.09%
CONTAINMENT/IN-OUT	OBLIGATIONS ARE CONTAINERS (§)	1	1	0.90%	0.05%
CONTAINMENT/IN-OUT	THE OBJECT COMES OUT OF A SUBSTANCE (⊥)	1	1	0.90%	0.05%
SPACE/FRONT-BACK	COMPLIANCE IS FOLLOWING (§)	1	1	0.90%	0.05%
SPACE/LOCATION	OBLIGATIONS ARE BURDENS (§)	1	1	0.90%	0.05%
<i>Total</i>		12	189	10.81%	8.58%

Table 4.77: Single sense image schema/metaphor pairs.

Image Schema	List Freq.	Corpus Freq.	% List	% Corpus
SPACE/LOCATION	2	63	1.80%	2.86%
SPACE/PATH	3	56	2.70%	2.54%
MULTIPLICITY/PART-WHOLE	2	28	1.80%	1.27%
CONTAINMENT/IN-OUT	1	4	0.90%	0.18%
MULTIPLICITY/MATCHING	1	2	0.90%	0.09%
<i>Total</i>	9	153	8.10%	6.95%

Table 4.78: Image schemas with contextual meanings not having metaphors.

Metaphor	Image Schema
SUBJECTS ARE AREAS	SPACE/PATH
	SPACE/LOCATION
COMPLIANCE IS FOLLOWING	SPACE/PATH
	SPACE/FRONT-BACK

Table 4.79: Metaphors with multiple image schemas.

Metaphor System	SPACE/Path	CONTAINMENT/Container	SPACE/Location	SPACE/Up-Down	SPACE/Scale	MULTIPLICITY/Part-Whole	FORCE/Resistance	SPACE/Center-Periphery	CONTAINMENT/In-Out	FORCE/Enablement	MULTIPLICITY/Linkage	MULTIPLICITY/Matching	SPACE/Front-Back	Total
EVENT STRUCTURE	707	9	157	71	22	0	25	8	0	5	2	0	0	1006
CONTAINER (Tolaas)	0	590	0	0	0	0	0	0	0	0	0	0	0	590
MENTAL EVENTS	109	0	130	0	0	0	0	0	0	0	0	0	0	239
RESPONSIBILITIES	126	0	1	0	0	0	0	0	1	0	0	0	1	129
CONDUIT METAPHOR	74	0	0	0	0	0	0	0	0	0	0	0	0	74
ORIENTATIONAL	0	0	0	4	0	0	0	0	0	0	0	0	0	4
CAUSATION-MAKING	0	0	0	0	0	0	0	0	1	0	0	0	0	1
NONE	56	0	63	0	7	28	0	0	4	0	0	2	0	160
Total	1072	599	351	75	29	28	25	8	6	5	2	2	1	2203

Table 4.80: Metaphor systems and image schemas, corpus frequencies.

4.9 Translation of Prepositions

In our analysis and discussion, the meanings of prepositional senses are communicated via English glosses from the definitions in the Louw-Nida lexicon, but in this section we address how prepositions are translated in the text of the English parallel corpus, the *Lexham English Bible (LEB)*. Our analysis focuses on how metaphor is preserved through literal translation and how it is modified in translation via a different basic meaning; both of these issues are addressed in terms of MIP and the cognitive linguistic analysis results through our translation analysis procedure (described in Section 3.5, p. 32).

The procedure compares English translations to the glosses in the Louw-Nida definitions of the contextual meanings and basic meanings identified in the MIP analysis to determine if and how the prepositional metaphor is translated. We are concerned with two aspects of the translation of metaphor: (1) the likelihood of preserving the metaphor through a translation that conveys the basic meaning based on the overlap of the glosses in the definitions of the contextual meaning and basic meaning identified in the MIP analysis, and (2) explanations of translations consisting of basic meanings that are not found among the glosses of the definition of the basic meaning identified in the MIP analysis (e.g., when ἐν [*en*], which means ‘in’, is translated ‘with’ or ‘by’).

In this section we begin with the basic analysis that traces back the source of the translation in terms of the glosses available in the lexicon and get an overview of how prepositions are translated (Section 4.9.1). Then we introduce the notion of the contextual-basic gloss percentage as a probabilistic means of analyzing the preservation of Greek prepositional metaphors in English (Section 4.9.2). This is followed by a selective analysis of English translations that consist of basic meanings but not according to the basic meaning in Greek (Section 4.9.3).

4.9.1 General Results of the Translation Analysis Procedure

The data resulting from this procedure allows us to see how metaphors are translated with respect to the options available in the realms of contextual meaning and basic meaning; we also see how prevalent each combination of labels is in the list and corpus. Tables 4.82 and 4.83 show the frequencies and percentages for the corpus for the contextual and basic translation label pairs. The definitions of the translation labels are included in Table 4.81; the translation procedure and its labels are described in detail in the methodology chapter in Section 3.5 (p. 32). Appendix C.9 contains the same for the list of translations in Tables C.28 and

C.29³⁸.

Label Type	Translation Label	Matches gloss in definition of	<i>matching prepositional sense</i>
Contextual	CDef	contextual meaning of	self
Basic	BDef	basic meaning of	
Contextual	COthSen	contextual meaning of	another sense of the same preposition
Basic	BOthSen	basic meaning of	
Contextual	COthPrep	contextual meaning of	sense of another preposition
Basic	BOthPrep	basic meaning of	
Contextual	CNoPrep	contextual meaning of	no prepositional sense in the corpus
Basic	BNoPrep	basic meaning of	
Contextual	NoTr	<i>not translated</i>	<i>n/a</i>
Basic			

Table 4.81: Summary of translation labels.

	CDef	COthSen	COthPrep	CNoPrep	NoTr	Total
BDef	727	254	3	0	0	984
BOthSen	122	127	1	0	0	250
BOthPrep	150	63	38	0	0	251
BNoPrep	303	158	125	48	0	634
NoTr	0	0	0	0	84	84
Total	1302	602	167	48	84	2203

Table 4.82: Translation analysis, corpus frequencies.

	CDef	COthSen	COthPrep	CNoPrep	NoTr	Total
BDef	33.00%	11.53%	0.14%	0.00%	0.00%	44.67%
BOthSen	5.54%	5.76%	0.05%	0.00%	0.00%	11.35%
BOthPrep	6.81%	2.86%	1.72%	0.00%	0.00%	11.39%
BNoPrep	13.75%	7.17%	5.67%	2.18%	0.00%	28.78%
NoTr	0.00%	0.00%	0.00%	0.00%	3.81%	3.81%
Total	59.10%	27.33%	7.58%	2.18%	3.81%	100.00%

Table 4.83: Translation analysis, corpus percentages.

³⁸It is important to note that the list of translations is built on the list of prepositional senses; since each prepositional sense has multiple translations, the list is expanded from 111 items to 445.

From these results we make a few observations that give us an overview of the translation of prepositions. Based on this analysis, we see that one third (33%) of the English corpus is translated with a basic gloss that is also a contextual gloss, literal translations according to what is recommended in the contextual definition. Over a tenth of the corpus (11.67%) consists of basic glosses that are not recommended in the contextual definition, in a sense, they are forced literal translations. Combining both observations, we see that close to half (44.67%) of the corpus consists literal translations that preserve the metaphor. On the other hand, nearly one third (28.78%) consists of non-prepositional expressions (i.e., ‘with regard to’, ‘with respect to’), thus Finally, only a few prepositional instances in the Greek corpus are left untranslated in the English corpus (3.81%).

4.9.2 Analysis of Translations Preserving Metaphor

The next step in our analysis is to focus on translations whose definitions have glosses that are simultaneously contextual and basic glosses the prepositional sense. In the Greek text, obviously the same word (or prepositional sense) has both a contextual meaning and a basic meaning, but the English contextual glosses do not always reflect this because they often do not contain any of the basic glosses; overlap between the contextual glosses and basic glosses is full or partial. We capture the degree of overlap in a measure we developed which we call the *contextual-basic gloss percentage*, the percentage of contextual glosses that are also glosses for the basic meaning. It is calculated as follows:

$$\text{contextual-basic gloss percentage} = \frac{\text{number of contextual glosses that are basic glosses}}{\text{number of contextual glosses}}$$

We give three examples for three contextual-basic percentages: 100%, 33.33%, and 0.00% . $\acute{\epsilon}\chi/89.3$ (*ek*) has a contextual meaning of *responsibility* and a corresponding basic meaning of *location*. In both cases, the glosses are the same: ‘upon’ and ‘on’; 100% of the contextual glosses are basic glosses. $\delta\iota\acute{\alpha}/89.76$ (*dia*) has a contextual meaning of *means* with glosses of ‘by means of’, ‘through’, and ‘by’; the second of these (‘through’) is the only gloss for the basic meaning of *extension*; 33.33% of the contextual glosses are basic glosses. Finally, $\delta\iota\acute{\alpha}/89.26$ (*dia*) is an example of a zero contextual-basic gloss percentage; it has a contextual meaning of *reason*; the gloss (‘through’) of the basic meaning (*extension*) is not found among the contextual glosses (‘because of’, ‘on account of’, and ‘by reason of’).

Keeping in mind the contextual-basic percentage of a prepositional sense allows us to observe, to a certain extent, the degree of intentionality in choosing a literal translation in light of the available options. A literal translation of a prepositional sense that has a 50% contextual-basic percentage requires more intentionality than for a contextual-basic percentage of 100%. In other words, a

preposition with a contextual-basic percentage of 100% means that all the options for the translation of a contextual meaning are glosses for the basic meaning, a literal translation, whereas a contextual-basic percentage of 50% means that half of the options (i.e., 1 out of 2, or 2 out of 4 glosses) for translating the contextual meaning are literal translations; thus, foregoing a non-literal option in favor of a literal option indicates intentionality to translate literally.

For this analysis, we divide the translations according to the six contextual-basic percentage that are calculated: 100%, 66.67%, 50%, 33.33%, 25%, and 0%. For each group, we multiply the contextual-basic percentage by the corpus distribution of the prepositional senses to calculate the expected corpus distribution of translations consisting of literal translations (i.e., CDef/BDef). The following is the calculation:

$$\textit{expected literal translation distribution} = \textit{contextual-basic percentage} \times \textit{percent corpus distribution}$$

It should be noted that this analysis is not based on any particular theory; rather, it is a purely probabilistic means of establishing a baseline for evaluating translation in light of the nature of the available glosses (i.e., use of a spatial meanings such as ‘in’ to convey a metaphoric meaning for a meaning such as *reason* or use of a non-spatial meanings such as ‘because of’).

Contextual-Basic Percentage	List Freq.	Corpus Freq.	% List	% Corpus	Literal Translation % Corpus	
					Expected	Actual
100.00%	5	21	4.50%	0.95%	0.95%	0.77%
66.67%	1	38	0.90%	1.72%	1.15%	1.04%
50.00%	20	331	18.02%	15.02%	7.51%	9.99%
33.33%	11	293	9.91%	13.30%	4.43%	8.81%
25.00%	7	307	6.31%	13.94%	3.48%	12.30%
0.00%	67	1213	60.36%	55.06%	0.00%	0.09%
Total	111	2203	100%	100%	17.53	33.00%

Table 4.84: Contextual-basic percentage, frequencies and distributions.

Table 4.84 contains the frequencies and distributions of prepositional senses according to contextual-basic percentages (list and corpus), as well as the expected and actual corpus distributions of literal translations. A very significant observation that results from dividing the list and corpus distributions according to contextual-basic percentage is that 55.06% of the corpus (and 60.36% of the list) have no overlap between the contextual and basic glosses (contextual-basic

percentage = 0%). Several observations follow from comparing the expected distribution with the actual distribution for literal translations. 17.53% of the English corpus is expected to consist of translations conveying basic meanings; the actual distribution of usch translations is nearly double: 33.00% (cf. Table 4.83, p. 132). As we carry out the same comparison for each group, an interesting pattern appears: starting with the 50.00% contextual-basic percentage group, as the expected corpus distribution decreases, the actual distribution exceeds it by a greater factor. For 50.00%, the expected distribution is slightly exceeded while for 33.00% it is nearly doubled and for 25.00% it is nearly tripled. 0.00% is also exceeded, in that the preposition is translated with a basic gloss even though the contextual and basic glosses do not overlap (i.e., no basic glosses are proposed as translation options by the definition of the contextual meaning). For the contextual-basic groups of 100.00% and 66.67%, which do not exhibit this pattern, one must keep in mind that each has less than 40 instances in the corpus while the rest of the non-zero contextual-basic percentage groups each has around 300 instances in the corpus.

To illustrate how a preposition can be translated with a basic gloss even though the contextual definition has basic/literal glosses listed, we look at a corpus instance whose prepositional sense has a 25% contextual-basic percentage. $\acute{e}v/89.5$ (*en*, ‘in’), which is in the contextual domain of *89/D Specification*, has the following contextual glosses: ‘in’, ‘about’, ‘in the case of’, and ‘with regard to’. Its corresponding basic prepositional sense is $\acute{e}v/83.13$; thus, the corresponding basic glosses are ‘inside’, ‘within’, and ‘in’. There are four contextual glosses and one of them (‘in’) matches a basic gloss, which yields the 25% contextual-basic percentage. Table 4.85 contains examples of this prepositional sense that otherwise could be translated ‘with regard to’, but are translated using the basic gloss ‘in’. 90.40% of the 151 corpus instances of this prepositional sense are translated literally.

Reference	Verse
Romans 5:3	ου μονον δε αλλα και καυχωμεθα [εν ταις θλιψεσιν]ειδοτες οτι η θλιψις υπομονην κατεργαζεται
	<i>ou monon de alla kai kauchōmetha [en tais thlipsesin] eidotes oti ē thlipsis ypomonēn katergazetai</i>
	And not only this, but we also boast [in our afflictions], because we know that affliction produces patient en- durance,
1 Thessalonians 5:18	[εν παντι]ευχαριστειτε τουτο γαρ θελημα θεου εν χριστω ιησου εις υμας
	<i>[en panti] eucharisteite touto gar thelēma theou en christō iēsou eis ymas</i>
	give thanks [in everything]; for this is the will of God for you in Christ Jesus.
2 Timothy 3:16	πασα γραφη θεοπνευστος και ωφελιμος προς διδασκαλιαν προς ελεγμον προς επανορθωσιν προς παιδειαν την [εν δι- καιουσυνη]
	<i>pasa graphē theopneustos kai ōphelimos pros didaskalian pros elegmon pros epanorthōsin pros paideian tēn [en dikaiosynē]</i>
	All scripture is inspired by God and profitable for teaching, for reproof, for correction, for training [in righteousness],

Table 4.85: Example verses of ἐν/89.5 ('in'), a prepositional sense with a 25.00% contextual-basic percentage.

4.9.3 Analysis of Translations that Switch the Metaphor

When an abstract metaphoric Greek preposition is translated with an English preposition that does not match its literal meaning, this is an indicator of the metaphor being switched since a different basic meaning is being used. In the previous section, it is observed that Louw-Nida definitions of contextual meanings contain glosses that overlap with those in the definition of the basic meaning identified in the MIP analysis (CDef/BDef). It is also possible for the glosses in these contextual definitions to overlap with the glosses of the basic meanings of other prepositional sense for the same preposition (CDef/B0thSen) or the basic glosses of other prepositions altogether (CDef/B0thPrep). For these translations, we seek to find patterns that account for the translation in terms of the underlying image schemas of the Greek prepositional sense. Within these label pairs, we exclude prepositional instances with a frequency of five or less if they fall outside the general pattern identified.

The metaphoric translations that come from the basic meanings of other senses for the same preposition (CDef/B0thSen) consist of 5 senses of the preposition ἐν (*en*, ‘in’)³⁹ that are translated as ‘with’ or ‘by’; their combined corpus frequency is 108 (out of a total of 122). All of them (1) belong to causative contextual domains (*90/A Agent*, *90/B Instrument*, *89/L Means*, and *89/N Manner*), (2) are accounted for with the CONTAINMENT/CONTAINER image schema, and (3) have the same basic prepositional sense (*83.13*; *83/C Among*, *Between*, *In*, *Inside*) which has basic glosses of ‘inside’, ‘within’, and ‘in’. The first translation, ‘with’, is a literal translation (CDef/BDef) of παρά/90.3 (*para*), which has a meaning of *agent*; the second translation, ‘by’, is also a literal translation for ἐν/89.80, which has a meaning of *attendant circumstances*. Both of these referenced prepositional senses convey a meaning of causality⁴⁰ and are accounted for with the SPACE/LOCATION image schema, which construes cause as proximity (Dirven, 1995, p. 100). In this case, SPACE/LOCATION replaces CONTAINMENT/CONTAINER; thus, one metaphor is translating another, perhaps because this construal of cause is more common or natural in the English language⁴¹.

³⁹They each have a frequency greater than 3.

⁴⁰Attendant circumstances is considered causative for the following reasons: (1) according to the Louw-Nida definition, ἐν/89.80 implies *means*, which is causative, and (2) although it is not explicitly listed among causative semantic roles, Luraghi considers it difficult to tell apart *attendant circumstances* from the causative semantic role of *instrument* (Luraghi, 2003, p. 47), and Dirven ((1995)) lists circumstance as an expression of cause.

⁴¹Dirven (1995, p. 99) observes that causality as proximity is more frequent in English than in German and Dutch.

We also find a highly frequent translation of causative contextual meanings for translations from the basic meaning of another preposition (CDef/BothPrep). 98 of the 150 corpus instances consist of the translation ‘by’ for three prepositions, with each preposition having a single or multiple prepositional senses where, again, SPACE/LOCATION replaces the image schema invoked in Greek. The three cases are divided up as follows. In one case, SPACE/LOCATION replaces SPACE/UP-DOWN in 41 translations of a sense of ὑπό (*hypo*, ‘under’) with a meaning of *agent*. In the other two cases, SPACE/LOCATION replaces SPACE/PATH. 30 instances are translations of three prepositional senses of διά (*dia*, ‘through’) with meanings of *means*, *agent*, and *instrument*. 27 instances are translations of two prepositional senses of ἐκ (*ek*, ‘out of’) with the meanings of *means* and *source (of event or activity)*⁴².

Based on the above analysis, we see that the translation of a metaphoric meaning with a basic gloss that is not in its definition, can be generally ascribed to image schema replacement. Furthermore, these general trends are mostly observable with causative or causative-related contextual meanings. Finally, SPACE/LOCATION is always the replacement image schema, taking the place of CONTAINMENT/CONTAINER, SPACE/UP-DOWN, and SPACE/PATH.

The analyzed translation label pairs are illustrated in two tables below (pp. 139, 140). The first (Table 4.86) shows the causative meaning common to both of them: *means*; CDef/BothPrep is represented by two examples since two different prepositions convey the meaning (διά [*dia*] and ἐκ [*ek*]).⁴³ The second (Table 4.87) shows an example of the most frequent contextual domain for each label pair.⁴⁴

⁴²*Source* is also acknowledged by Dirven as a basis for construal of cause (1995, p. 98).

⁴³To the greatest degree possible, examples with ‘grace’ as the object of the preposition are chosen, with the next preference to the contrasting ‘works’, and in the absence of either of these, words pairs conveying virtuous actions or qualities (‘toil and labor’ and ‘holiness and purity’).

⁴⁴In most cases the object of the preposition is a phrase related to power for various causative meanings (*instrument*, *manner*, and *attendant circumstances*); the exception is 1 Corinthians 2:12, an example of the *agent* causative meaning which stands apart from the rest of the overlapping meanings represented in the table.

Reference/Info	Verse
2 Corinthians 1:12	<p>ἡ γὰρ καυχῆσις ἡμῶν αὕτη ἐστὶν τὸ μαρτυρίον τῆς συνειδήσεως ἡμῶν ὅτι [εν αγιοτητι και ειλικρινεια του θεου] οὐκ ἐν σοφίᾳ σαρκικῇ ἀλλ' [εν χαριτι θεου] ἀνεστραφημεν ἐν τῷ κόσμῳ περισσοτέρως δὲ πρὸς ὑμᾶς</p> <p><i>ē gar kauchēsis ēmōn autē estin to martyriōn tēs syneidēseōs ēmōn oti [en agiotēti kai eilikrineia tou theou] ouk en sophia sarkikē all [en chariti theou] anestrāphēmen en tō kosmō perissoterōs de pros ymas</i></p> <p>For our reason for boasting is this: the testimony of our conscience that we conducted ourselves in the world, and especially toward you, [in holiness and purity of motive from God], not in merely human wisdom, but [by the grace of God].</p>
ἐν (<i>en</i>)	
<i>means</i>	
Context: 89.76 'by'	
CONTAINMENT/CONTAINER	
Basic: 83.13 'in'	
CDef/B0thSen	
Romans 12:3	<p>λέγω γὰρ [διὰ τῆς χάριτος τῆς δοθείσης μοι] παντὶ τῷ ὄντι ἐν ὑμῖν μὴ ὑπερφρονεῖν παρ' ὃ δεῖ φρονεῖν ἀλλὰ φρονεῖν εἰς τὸ σωφρονεῖν ἑκάστῳ ὡς ὁ θεὸς ἐμερίσεν μέτρον πίστεως</p> <p><i>legō gar [diā tēs charitos tēs dotheisēs moi] panti tō onti en ymīn mē yperphronein par' o dei phronein alla phronein eis to sōphronein ekastō ōs o theos emerisen metron pisteōs</i></p> <p>For [by the grace given to me] I say to everyone who is among you not to think more highly of yourself than what one ought to think, but to think sensibly, as God has apportioned a measure of faith to each one.</p>
διά (<i>dia</i>)	
<i>means</i>	
Context: 89.76 'through'	
Basic: 84.29 'through'	
SPACE/PATH	
CDef/B0thPrep	
Romans 11:6	<p>εἰ δὲ χάριτι οὐκετι [εκ εργαων] ἐπει ἡ χάρις οὐκετι γίνεταί χάρις</p> <p><i>ei de chariti ouketi [ek ergōn] epei ē charis ouketi ginetai charis</i></p> <p>But if by grace, it is no longer [by works], for otherwise grace would no longer be grace.</p>
ἐκ (<i>ek</i>)	
<i>means</i>	
Context: 89.77 'by'	
Basic: 84.4 'out of'	
SPACE/PATH	
CDef/B0thPrep	

Table 4.86: Example verses of *means*, the meaning common to all analyzed basic gloss translation pairs.

Reference/Info	Verse
Romans 15:19	[εν δυναμει σημειων και τερατων] [εν δυναμει πνευματος]
ἐν (<i>en</i>)	ωστε με απο ιερουσαλημ και κυκλω μεχρι του ιλλυρικου
<i>instrument</i>	πεπληρωκεναι το ευαγγελιον του χριστου
Context: 90.10 ‘with’	[<i>en dynamei sēmeiōn kai teratōn</i>] [<i>en dynamei pneu-</i>
Basic: 83.13 ‘in’	<i>matos</i>] <i>ōste me apo ierousalēm kai kyklō mechri tou il-</i>
CONTAINMENT/CONTAINER	<i>lyrikou peplērōkenai to euangelion tou christou</i>
CDef/B0thSen	[by the power of signs and wonders], [by the power of
	the Spirit], so that from Jerusalem and traveling around
	as far as Illyricum I have fully proclaimed the gospel of
	Christ.
1 Corinthians 2:12	ημεις δε ου το πνευμα του κοσμου ελαβομεν αλλα το πνευμα
ὑπό (<i>hypo</i>)	το εκ του θεου ινα ειδωμεν τα [υπο του θεου]χαρισθεντα
<i>agent</i>	ημιν
Context: 90.1 ‘by’	<i>ēmeis de ou to pneuma tou kosmou elabomen alla to</i>
Basic: 83.51 ‘under’	<i>pneuma to ek tou theou ina eidōmen ta [ypo tou theou]</i>
SPACE/UP-DOWN	<i>charisthenta ēmin</i>
CDef/B0thPrep	Now we have received not the spirit of the world, but the
	Spirit who is from God, in order that we may know the
	things freely given to us [by God],

Table 4.87: Example verses of the most frequent meaning for each analyzed basic gloss translation labels.

4.10 Summary of Findings

At the end of a lengthy series of findings, it is of benefit to revisit the research questions and the answers resulting from our analysis which falls into two parts: (1) a version of MIP that is augmented with preposition oriented, cognitive linguistic analysis, and (2) a translation analysis of prepositional metaphors that is based on the contextual/basic distinction of MIP, image schemas, and literal translations of the metaphors. The first part of the analysis answers the first three research questions (Section 1.1, p. 3) regarding

- how image schemas and MIP reduce the ambiguity of prepositions
- how image schemas bridge basic and contextual meanings
- how conceptual metaphors relate to the image schemas

The second part addresses the question on the preservation and switching of prepositional metaphors in translation.

Associating image schemas with prepositions results reduces ambiguity because various prepositional senses are grouped together around an image schema. In addition, although more than one image schema is associated with a preposition there is usually one image schema that is associated more frequently with the preposition than the others. Applying MIP to metaphoric prepositions, and thereby aligning contextual meanings to basic meanings, also shows a reduced ambiguity because the contextual-basic domain pairs are mostly associated with a single image schema and in cases where two image schemas are associated, they happen to be related to one another, where one is more general/specific than the other (e.g., LOCATION vs. UP-DOWN, SPACE/PATH vs. FORCE/ENABLEMENT). A look at how image schemas are related to contextual meanings reveals that a multiplicity of construals for a meaning results in multiple image schemas, as is the case with caustative meanings (i.e., *agent, manner, instrument, reason*). The main factors identified in accounting for the versatility of an image schema in being associated with multiple meanings include the image schema (1) being general (i.e., LOCATION), (2) having multiple applications (i.e., CONTAINER), and (3) having multiple components and aspects (i.e., PATH). At the end of the spectrum with respect to multiple construals of a meaning and multiple associations of an image schema, we find the nearly synonymous *quantity* and SCALE, which both can be described as specialized and specific. For basic meanings, the correspondence to image schemas is mostly straight forward, while for the minority of cases are due to (1) the use of specific spatial meaning to indicate LOCATION, (2) the use of the end result of motion to indicate position PATH, or (3) the use of a meaning of position or extension to refer to a more complex physical notion of spatial correspondence (e.g., LINKAGE or MATCHING) or force (e.g., ENABLEMENT or RESISTANCE). To round out the analysis with

respect to conceptual metaphor, we find that the vast majority of the metaphoric prepositions (over 90% in the corpus and the list) have related metaphors that fully, partially, or indirectly explain the image schema of the contextual-basic mappings identified in the MIP analysis.

The analysis of the translation of metaphoric prepositions in English in the *LEB* corpus focuses on literal translations and tracing back the source of the translation based on the glosses found in the definitions of the Louw-Nida lexicon. Almost 68% of the prepositions are translated with English prepositions. Literal translations that are found in the Louw-Nida definitions of the contextual meaning account for 33% of the corpus even though a shallow probabilistic analysis would expect the distribution to be around 18%. Almost 12% of the corpus consists of literal translations that are only found in the Louw-Nida definitions of the basic meanings. In cases of literal translation that are not found in the contextual meaning, the translations are explained as switching of image schema (using an English metaphor instead of a Greek metaphor). As with multiple construals of meaning, causative or causal-related meanings are observed as having such definitions to preserve metaphoricity and the ambiguity warranted by these closely related meanings.

Chapter 5

Conclusion

This inquiry contributes to the conversation on prepositions in the New Testament on various fronts: a rich cohesive methodology, a wide scope, and subsequently general insights useful for analysis done at a lower level of granularity. Finally, it addresses the issue of the elusiveness of prepositions with quantitative insight that incorporates the results of our image schema based analysis.

5.1 Methodological Contribution

The elaborate methodology employs, combines, and introduces analytical procedures in a sequence where one builds on the findings of the previous while the value of the individual phases of analysis stands on its own. The corpus-linguistics foundation allows for the observation of a sufficient amount of data and avoids anecdotal evidence or selectivity. Employing the MIP procedure integrates a systematic mechanism for identifying metaphors at the linguistic level. The addition of cognitive analysis that identifies image schemas and related conceptual metaphors follows from Steen et. al.'s linguistic/cognitive distinction metaphor that requires an additional layer of analysis to be added to MIP (2010b).

The translation analysis is a contribution of our work that is rooted in both the linguistic MIP analysis and the cognitive analysis. It defines (1) criteria for the preservation of a prepositional metaphor in translation and (2) a framework for analyzing translations consisting of prepositions that are not perfect preservations of the metaphor. The translation analysis procedure is based not only on MIP's notions of contextual and basic meanings, but also based on MIP's use of dictionaries as it uses glosses from the definitions of contextual and basic meanings for the analysis. The criteria of preservation of metaphor takes the assumption that the same word has two contrasting meanings (contextual and basic) that form a metaphor which is projected onto the target language. The analysis for other translations that are literal in the target language makes use of the image schema metaphor identified in the cognitive analysis to identify whether

the image schema is preserved or switched while maintaining a preposition in the translation. Thus, the MIP and cognitive analysis are highly integrated into the translation analysis.

5.2 Scope of Analysis

In Biblical Studies, the proper cognitive linguistic treatment of prepositions is a relatively recent development. NT Greek grammars (Robertson, 1914; Wallace, 1996) and lexicons (Louw & Nida, 1996; Arndt, Danker, & Bauer, 2000) do cover the various meanings of prepositions as have works dedicated on prepositions (Heinfetter, 1850; M. J. Harris, 2012), but intentional cognitive linguistic accounting for the meanings of Greek prepositions is relatively recent, aside from Howe's (2006) treatment of *ἐν χριστῷ* (*en christō*, 'in Christ'). A major collective towards such an accounting was begun with the *Tyndale House Workshop in Greek Prepositions* (2017) where the works presented focused on singular prepositions, related prepositions, or their use in specific contexts.¹

5.3 Nature of the Findings

Based on the scope and the subsequent granularity of the analysis, the findings characterize the prepositions covered in a uniform manner that is rooted in human cognition. However, although the study is motivated by an enhanced cognitive linguistic understanding of metaphoric Greek prepositions and their English translations, the findings are equally significant with respect to image schemas as they relate to prepositions.

5.4 Usefulness of Findings for Finer Grained Analysis

ἐν χριστῷ (*en christō*, 'in Christ') is a rich, elusive, multifaceted phrase that has been much discussed, but admittedly not exhausted (C. R. Campbell, Thate, & Vanhoozer, 2014). Campbell et. al.'s (2014) consolidated conversation on the phrase in the Pauline Corpus is based on a theological understanding of the phrase as a reference to union with Christ, citing variations and expansions of the this notion by theologians throughout history. This theological understanding is, of course, rooted in linguistic analysis which is the MIP equivalent of finding the

¹The presenters whom I informed regarding this work (in progress at the time) were surprised that all the prepositions were being addressed, but were optimistic regarding the usefulness and fruitfulness of analysis at such a high level of granularity.

contextual meaning. In other words, linguistic analysis of various instances of this phrase is aggregated into the notion of union with Christ.

Campbell's essay titled "Metaphor, Reality, and Union with Christ" connects various metaphors found in the Pauline Corpus that refer to "union, participation, identification, incorporation" with respect to Christ. He adopts a view that metaphor is highly integrated into language, which is a step forward (and away) from the classical view of metaphor as decorative language, but does not employ cognitive linguistics explicitly. He summarizes his findings in the following statement:

The metaphors explored in this essay each correlate to different elements of union, participation, identification, incorporation. The marriage metaphor is primarily related to "union," indicating spiritual oneness. The clothing metaphor is primarily related to "identification," in that believers are no longer to identify with the old self, but to put on the new. The body, temple and building metaphors relate to "incorporation," developing the notion of corporate inclusion in Christ.

Here metaphors are presented as building blocks that contribute to the notion of union with Christ in different ways. In a sense, metaphor serves as evidence for a linguistically rooted theological understanding of the phrase $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ') as 'union with Christ'.

Engaging the above using our approach would help qualify its generalized definition of $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ') and properly situate Campbell's metaphor analysis. With respect to 'union with Christ' as a definition, our approach stands as a parallel to the underlying linguistic analysis that leads to such a conclusion. Thus, it can root the contextual meaning of each instance in a basic meaning to see to what degree 'union with Christ' stands as a representative "theological translation" of $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ'). With respect to the metaphors that are correlated to this theological translation (marriage, clothing, body, temple, and building), our approach would shed light on how they relate to the underlying prepositional metaphors for $\epsilon\nu$ (*en*, 'in'). In sum, we have a twofold goal of (1) showing the implications of identifying linguistic metaphors from the beginning of the path to understanding $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ'), and (2) highlighting the distinctives of our approach and the complementary role it plays to theological analysis.

The first step in applying our methodology to is identify the instances of $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ') that are in our corpus-based on a published list related to (C. R. Campbell et al., 2014). We find such a list in a preceding work by Campbell (2012) on the theme of union with Christ, in which he cites 160 instances of $\epsilon\nu \chi\rho\iota\sigma\tau\omega$ (*en christō*, 'in Christ') and equivalent phrases (e.g., $\epsilon\nu \kappa\upsilon\rho\iota\omega$, *en kyriō*, 'in [the] Lord') referring to Christ and pronomial references (i.e.,

εν αὐτῷ, *en autō*, ‘in Him’; εν ὧ, *en ō*, ‘in Whom’).² Among these, 149 fit the criteria of our analysis and are considered metaphoric in our corpus.³

The next step is to see how many of these 149 instances are tagged with the meaning of ‘union with Christ’ in our corpus as well as in other sources. Considering the analysis of additional sources (1) accommodates the ambiguous nature of the expression, (2) serves to compensate for any errors in the tagging of the corpus, and (3) makes our analysis better suited for comparison with analysis that cites multiple sources. The other sources we include are the *Exegetical Summary Series (ESS)* and *BDAG*⁴ (Arndt et al., 2000), a widely recognized lexicon whose definitions contain examples which serve as analyses of various instances of the phrase in question.⁵

The contextual meaning in Louw-Nida that matches ‘union with Christ’ is *89.119/g in union with (association)*. The corresponding entry in *BDAG*, which is additionally described as Pauline and Johanne (i.e., The writings of John the Apostle), is entry number *4.c* of the definition of the preposition εν (*en*, ‘in’). 90 of the 149 instances in the *SBLGNT* corpus are tagged as *89.119*. Of the remaining instances not tagged as such in the *SBLGNT*, 28 are tagged as *89.119* by the *Exegetical Summary Series* and 8 are tagged with ‘union with Christ’ meaning defined in *BDAG* (entry number *4.c*). Based on this, we can more specifically say that 84.56% (126 of 149) of the instances can be tagged with the ‘union with Christ’ meaning. Our methodology and results do not investigate alternate options for the tagging, but it is worth asking the following questions regarding these 126 instances:

1. How is ‘union with Christ’ confirmed among multiple sources?
 - 26 are tagged as such by *SBLGNT*, *ESS*, and *BDAG*
 - 54 are tagged as such by two of the three sources
 - 46 are tagged as such by one source only
2. What other meanings are proposed alongside this meaning and how frequently?
 - 21 instances are tagged as *89.5/specification* (‘with regard to’) by *SBLGNT* and/or *ESS*

²In our comparison, we found 5 instances not cited by Campbell: Ephesians 2:16, 4:21; Philippians 2:24, 29, Philippians 4:13.

³11 instances from Campbell’s list did not overlap with our corpus due to differences in tagging (our corpus tagged 7 of them as spatial and 1 as an idiom) and translation of pronouns (our translated corpus translated 3 instances of pronouns as referring to something other than Christ: ‘in which’ instead of ‘in Whom’ and ‘in them’ or ‘by it’ instead of ‘in Him’).

⁴A Greek-English Lexicon of the New Testament and Other Early Christian Literature

⁵Louw-Nida contains the same, but these are used in the tagging of the corpus and, thus, are already considered and do not serve as an additional source.

- 20 instances are tagged as *90.6/agency* by *SBLGNT* and/or *ESS*
 - 4 instances are present both of the above meanings as options
3. How frequent are additional options proposed alongside this meaning?
- 50 instances have additional options from *ESS*
4. How many instances having this meaning are not analyzed in any of the additional sources (i.e., neither *ESS* nor *BDAG*)?
- 12 are not analyzed in the additional sources (neither *ESS* nor *BDAG*)

When we consider the 149 instances of the phrase, 17.45% are confirmed among three sources, 36.24% are confirmed by two sources, and 30.87% are tagged by one source only. Furthermore, 30.2% are repeatedly contested by *specification*, *agency*, or both of these meanings. Finally, 33.56% can be interpreted as having at least one alternate meaning. Based on this, we can see that how a corpus linguistic approach can quantify the prevalence of the meaning of ‘in Christ’ as ‘union with Christ’ and sheds light on the degree of confidence one can have in that analysis when multiple sources are considered.

Reference/Info	Verse
1 Corinthians 15:22	ωσπερ γαρ [εν τω αδαμ] παντες αποθνησκουσιν ουτως και εν τω χριστω παντες ζωοποιηθησονται
ἐν (<i>en</i>)	
<i>association</i>	<i>ōsper gar [en tō adam] pantes apothnēskousin outōs kai en tō christō pantes zōopoiēthēsontai</i>
Context: 89.119 ‘in union with’	
Basic: 83.13 ‘in’	For just as in Adam all die, so also [in Christ] all will be made alive.
CONTAINMENT/CONTAINER	
Colossians 1:4	ακουσαντες την πιστιν υμων [εν χριστω ιησου] και την αγαπην ην εχετε εις παντας τους αγιους
ἐν (<i>en</i>)	
<i>specification</i>	<i>akousantes tēn pistin ymōn [en christō iēsou] kai tēn agapēn ēn echete eis pantas tous agious</i>
Context: 89.5 ‘with regard to’	
Basic: 83.13 ‘in’	since we heard about your faith [in Christ Jesus] and the love that you have for all the saints,
CONTAINMENT/CONTAINER	
Colossians 1:16	οτι [εν αυτω] εκτισθη τα παντα εν τοις ουρανοις και επι της γης τα ορατα και τα αορατα ειτε θρονοι ειτε κυριότητες ειτε αρχαι ειτε εξουσιαι τα παντα δι αυτου και εις αυτον εκτισται
ἐν (<i>en</i>)	
<i>agent</i>	
Context: 90.6 ‘by’	<i>oti [en autō] ektisthē ta panta en tois ouranois kai epī tēs gēs ta orata kai ta aorata eite thronoi eite kyriotētes eite archai eite exousiai ta panta di autou kai eis auton ektistai</i>
Basic: 83.13 ‘in’	
CONTAINMENT/CONTAINER	
	because all things in the heavens and on the earth were created [by him], things visible and things invisible, whether thrones or dominions or rulers or powers, all things were created through him and for him,

Table 5.1: Example verses of the most frequent meaning of εν (*en*, ‘in’) in εν χριστω (*en christō*, ‘in Christ’).

Having observed the contextual meaning, we note that the basic meaning, image schema, and related metaphor are the same for all instances: ‘in’ (*location*) belonging to the subdomain *83/C Among, Between, In, Inside*, CONTAINMENT/CONTAINER, and BEING RESTRICTED IS BEING IN A CONTAINER. This single option for the basic meaning of εν (*en*, ‘in’) in εν χριστω (*en christō*, ‘in Christ’) contributes to the ambiguity of the contextual meaning. From the same basic meaning, the same explanation (BEING RESTRICTED IS BEING IN A CONTAINER) is applied with restriction being the general notion that the contextual meaning fits under. Thus, *union* and *specification*, and *agency* all represent or contain some sort of restriction. These meanings are illustrated with examples in Table 5.1. Restriction in *union* is a believer being engulfed by Christ (1 Corinthians 15:22). Restriction in *specification* is constraining speech, action, or attitude of a believer to being for or about Christ (Colossians 1:4). Restriction in *agency* is ascribing an action and its result to Christ (Colossians 1:16). In addition to how the image schema is explained with respect to the contextual meaning, we note that there is a direct correspondence to the basic meaning; the correspondence between ‘in’ and containment is direct.

Reference/Info	Verse
Colossians 1:16	οτι [εν αυτω] εκτισθη τα παντα εν τοις ουρανοις και επι της γης τα ορατα και τα αορατα ειτε θρονοι ειτε κυριότητες ειτε αρχαι ειτε εξουσιαι τα παντα δι αυτου και εις αυτον εκτισται
ἐν (<i>en</i>)	
<i>agent</i>	
Context: 90.6 ‘by’	oti [en autō] <i>ektisthē ta panta en tois ouranois kai epitēs gēs ta orata kai ta aorata eite thronoi eite kyriotētes eite archai eite exousiai ta panta di autou kai eis auton ektistai</i>
Basic: 83.13 ‘in’	
CONTAINMENT/CONTAINER	
	because all things in the heavens and on the earth were created [by him], things visible and things invisible, whether thrones or dominions or rulers or powers, all things were created through him and for him,
Ephesians 2:10	αυτου γαρ εσμεν ποιημα κτισθεντες [εν χριστω ιησου] επι εργοις αγαθοις οις προητομασεν ο θεος ινα εν αυτοις περιπατησωμεν
ἐν (<i>en</i>)	
<i>agent</i>	
Context: 90.6 ‘by’	<i>autou gar esmen poiēma ktisthentes [en christō iēsou] epi ergois agathois ois proētoimasen o theos ina en autois peripatēsōmen</i>
Basic: 83.13 ‘in’	
CONTAINMENT/CONTAINER	
	For we are his creation, created [in Christ Jesus] for good works, which God prepared beforehand, so that we may walk in them.

Table 5.2: Examples of verses containing εν χριστω (*en christō*, ‘in Christ’) where εν (*en*, ‘in’) is tagged as 90.6/*agent* but translated differently.

With respect to translation, *εν* (*en*) is translated as ‘in’, and thereby preserving the metaphor across the two languages, in 97.32% of the instances (145 of 149); the other four instances are translated as ‘by’, indicating agency.⁶ Of these 145 instances, 89 are tagged as *89.119/association* (‘in union with’), 38 are tagged as *89.5/specification* (‘with regard to’), and 10 are tagged as *90.6/agency* (‘by’). Thus, the overwhelming majority of the translations do not only preserve the metaphor, but also the ambiguity that is brought about by the CONTAINMENT/CONTAINER schema. Whereas tagging forces one option, translation allows for ambiguity to remain, but translators are at times willing to commit to a single option when there is certainty in their interpretation even if they are committed to a literal translation. This is exemplified in a pair of verses where an equivalent of *εν χριστω* (*en christō*, ‘in Christ’) modifies the verb *κτίζω* (*ktizō*, ‘create’); they are displayed in Table 5.2.

In Colossians 1:16, which speaks of physical creation, the *LEB* translation commits to ‘by’, conveying agency; the role of Christ in physical creation is attested to elsewhere (John 1:3,10) with a different preposition: *διά* (*dia*, ‘through’) which conveys various causative meanings including *agency*. In Ephesians 2:10, which speaks of spiritual creation, the translation keeps the ambiguity ‘in’ since this work is usually ascribed to the Holy Spirit as the immediate agent (John 3:3,5-6; Titus 3:5). Both of these instances are tagged as *90.6/agency*. The instance in Colossians 1:16 is confirmed by *ESS*, but *BDAG* makes a case that this creation is ‘in association with’ Christ. The instance in Ephesians 2:10 is contradicted by *ESS* and tagged as *89.119/association* (‘in union with’).⁷ Nevertheless, the interpretation undertaken by the translators of *LEB* defies the literal approach, which would choose ‘in’, and instead they choose ‘by’ which has a solid theological backing in one instance (Colossians 1:16). On the other hand the *LEB* stays both literal and ambiguous in the other instance (Ephesians 2:10).

Finally, our methodology uses metaphor in a different way from Campbell, but the two approaches are complementary and related. Our methodology identifies a conceptual metaphor of BEING RESTRICTED IS BEING IN A CONTAINER that explains how the basic meaning of ‘in’ and the image schema CONTAINMENT/CONTAINER can convey meanings of *union*, *agency*, and *specification*. By using it in this way, in a sense, we are proposing that it is implicitly referenced in the text. On the other hand, Campbell takes four ontological metaphors (body, temple, marriage, and clothing) that are explicitly referenced by Paul and

⁶In two instances, this translation is consistent with the tagging of the corpus (*90.6 agent*), but in the other two instances, the translation is consistent with the tagging: *90.56/experiencer* which is typically translated as ‘to’, and the highly cited *89.119/association* (‘in union with’) which is typically translated as ‘in’.

⁷The only possible explanation for the tagging in the corpus is that spiritual creation can be ascribed to Christ by transitivity since Christ sent the Holy Spirit (John 14:26), but this theological could be a bit far fetched and perhaps it could be that some automated tagging process has tagged the Ephesians 2:10 as *agency* since it modifies the verb for creation.

points out how Paul highlights aspects of these metaphors to convey various aspects of union with Christ. For example, he concludes that through the marriage metaphor Paul conveys that the union between Christ and the church is intimate while preserving the distinctiveness of the two parties involved (Christ and the church). Campbell is understanding a text based on the ontological metaphors that are in it; we are understanding the metaphoricity of a preposition by validating its interpretation through a compatible construal in a conceptual metaphor. Campbell's analysis is useful for determining the contextual meaning of a preposition which is the first step of our methodology; it takes into consideration the external factors contributing to the meaning of the preposition. Our use of metaphor considers the intrinsic factors contributing to its meaning. Furthermore, Campbell's understanding of each metaphor draws from various texts and the four metaphors are combined to make a case for union with Christ as a theological theme in Paul's writings. This shows that metaphor is not only pervasive at the word or sentence level, it also stands on its own as a source of analysis at a higher level of granularity in biblical and theological analysis.

By chiming in on a theological conversation about *εν χριστω* (*en christō*, 'in Christ'), we manage to do several things. First, we qualify 'union with Christ' as a theological generalization that is less obvious when subjected to cognitive linguistic analysis. This does not necessarily mean that the theological conclusion is weakened, but rather that it is fortified with other theological conclusions and logic. Second, we shed light on the preservation of the metaphor through a literal/basic translation and uncover cases where it is sacrificed because of theological certainty, or perhaps for the sake of theological clarity, even when the intent is to be literal in translation. Third, we show the prevalence of metaphor in a way perhaps not previously obvious: metaphorical analysis can be applied to language, as displayed in our methodology, as well as theology, as contrasted with Campbell. The overall conclusion, especially based on the second and third points, is that the linguistic/cognitive/theological distinctions are good and useful, but can get intertwined.⁸ In other words, based on how clear a linguistic definition or theological concept, it can feed into the analysis of another type (i.e., a clear linguistic definition of a word can affect theological analysis, or a clear theological concept can affect linguistic analysis of a word).

⁸This is not to contradict that theology is built primarily on the analysis of linguistically clear passages which guide how unclear passages are interpreted. Nevertheless, the relationship between linguistic and theological analysis is symbiotic especially as one disambiguates unclear linguistic meanings and eliminates options that are viable linguistically but not theologically.

5.5 The Elusiveness of Prepositions: Final Words and Numbers

The elusiveness of metaphoric prepositions in the Pauline corpus stems from their ambiguity. This study has applied systematic image schema based analysis that characterizes their elusiveness through both qualitative and quantitative means. The initial work was qualitative, tracing back the contextual meaning to a basic meaning, and explaining the metaphor with an image schema found to be consistent with the basic meaning and its contrasting contextual meaning. Based on this, we carried out qualitative analyses consisting of mix-and-match of these three variables: basic domains vs. contextual domains, basic domains vs. image schema, and contextual domains vs. image schema.

Quantifying the findings of these analyses has allowed us to reduce the fog surrounding prepositions by shedding light on the prevalence of ambiguity and the degrees of elusiveness among prepositions. The elusiveness of prepositions can be ascribed to the following factors: (1) the difficulty of explaining the mapping especially if the underlying metaphor is archaic, (2) a basic meaning that is older than the New Testament, (3) cases where part of the contextual meaning cannot be mapped to an image schema, and (4) when the contextual meaning belongs to the group of closely related causative meaning. The degree of elusiveness thus can be estimated by calculating the frequency of the prepositional instances that are affected by the above factors, individually or in combination. According to this measure the elusiveness is localized to 63% of the corpus (1388 of 2203 instances), and if we are willing to group together causative meanings under a single umbrella, the elusiveness would exist in only 40.22% of the corpus (886 of 2203 instances). Thus, the problem is not as prevalent as it may seem.

Regardless of how we want to look at the problem, we must acknowledge that identifying the image schemas for a metaphoric preposition does not result in demystifying prepositions. Image schemas are canvases on which one can paint in the details of the path from basic meaning to contextual meaning; they are skeletal structures on which one builds and hangs materials to make a case for the metaphoric meaning, perhaps bending the structure a bit in the process. As a result, one meaning can be represented through various image schemas, and also one image schema can account for different prepositional meaning in different ways. In essence, image schemas are merely an anchor for more elusiveness, the elusiveness of explaining the metaphor based on the image schema. In many cases, though, the elusiveness is tamed when one image schema is more frequently evoked than others for a given preposition and the metaphor arising from the image schema has a straight forward explanation.

Finally, we must say a word about the starting point of our inquiry, prepositions. The ultimate end in reading the Pauline corpus, or any other part of the New Testament, is understanding the text and the message. Understanding

prepositions is obviously key to this, but it is not the only key, neither is it a main key.⁹ Obviously, there are other lexical, grammatical, and discourse level structures that contribute to the understanding of the text. Thus, we should not place a burden on their understanding, but rather build on clearer clues that lie outside of them while allowing them to be ambiguous because perhaps the ambiguity is intended and the meaning of prepositions does not need to conform to our expectations regarding a certain level of clarity or specificity intrinsic to them.

⁹As (M. J. Harris, 2012, p. 13) points out: “Prepositions in themselves do not carry theological meaning, but the way they are used invests them with theological import.”

Appendix A

Abbreviations

BDAG	A Greek-English Lexicon of the New Testament and Other Early Christian Literature (by Bauer, Danker, Arndt, and Gingrich)
ESS	Exegetical Summary Series
GLRB	Greek Lexicon of the Roman and Byzantine Periods
ISCAT	Image Schema Catalogue
LEB	Lexham English Bible
Louw-Nida	Greek-English Lexicon of the New Testament: Based on Semantic Domains (by Louw and Nida)
LSJ	A Greek-English Lexicon (by Lidell, Scott, and Jones)
M-M	Vocabulary of the Greek Testament (by Moulton and Milligan)
MIP	Metaphor Identification Procedure
SBLGNT	Society of Biblical Literature Greek New Testament

Appendix B

Structural metaphors

Structural metaphors allow for one domain to be reasoned of in terms of the other. This is facilitated by mappings from *source domains* to *target domains*, as well as entailments, which are additional mappings that are inferences resulting from the basic mappings. Source domains are the conceptual domains that are used to explain concepts within a target domain. Furthermore, these mappings exist at various levels of abstraction within systems composed of *inheritance hierarchies* (Lakoff, 1993). An *inheritance hierarchy* consists of an abstract *generic-level* metaphor at the top level from which are derived *specific-level* metaphors; *specific-level* metaphors can also have other *specific-level* metaphors of greater specificity derived from them. Thus, the hierarchy consists of multiple levels of abstraction.

Such a system is illustrated in Figure B.1 (below) which contains an inheritance hierarchy based on the *event structure metaphor*, one of the posited conceptual metaphor systems¹. This overarching metaphor, on Level 1, maps the source domain of SPACE onto the target domain of EVENTS. On Level 2 is the A PURPOSEFUL LIFE IS A JOURNEY metaphor; it is derived from the event structure metaphor; it contains more concrete source and target domains, *journey* (vs. space) and *life* (vs. events), respectively. While the relation between Level 1 and Level 2 is based on abstraction, the relation between Level 2 and Level 3 is a part/whole relation; in both cases there is greater specificity in the lower-level metaphor. LOVE IS A JOURNEY maintains the same source domain, but uses various aspects of life, such as one's *love* life or *career*, as target domains.

The metaphors discussed above are all conceptual metaphors and not linguistic expressions (Kovecses, 2002). These conceptual metaphors, however, are the basis of linguistic expressions such as *we are at a fork in the road*, *we're spinning our wheels*, and *we've reached a dead end*. Such linguistic expressions are the evidential basis for CMT.

¹Another system that has been posited is the Great Chain metaphor which contains a subsystem, the Complex Systems metaphor (Kovecses, 2002).

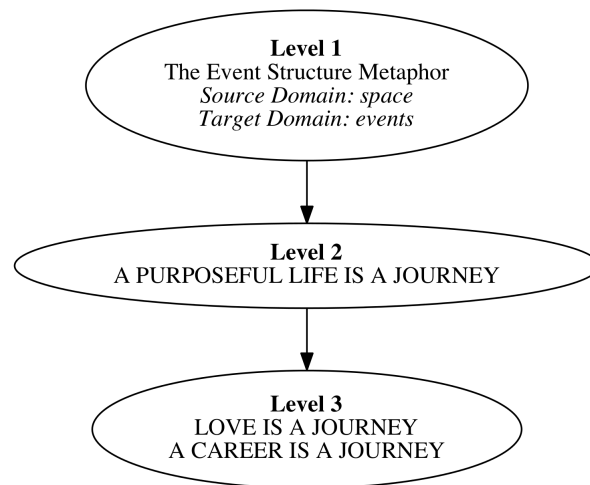


Figure B.1: Inheritance Hierarchies in the Event Structure Metaphor.

As previously stated, mappings exist at various levels of abstraction. What follows is a description of these mappings as they exist on various levels.

At Level 1, the Event Structure Metaphor consists of the following generic-level mappings and entailments.

Mappings

- States are locations (bounded regions in space).
- Changes are movements (into or out of bounded regions).
- Causes are forces.
- Actions are self-propelled movements.
- Purposes are destinations.
- Means are paths (to destinations).
- Difficulties are impediments to motion.
- Expected progress is a travel schedule; a schedule is a virtual traveler, who reaches pre-arranged destinations at pre-arranged times.
- External events are large, moving objects.
- Long term, purposeful activities are journeys.

Entailments

- Manner of action is manner of motion.
- A different means for achieving a purpose is a different path.

- Forces affecting action are forces affecting motion.
- The inability to act is the inability to move.
- Progress made is distance traveled or distance from goal.

At Level 2 and Level 3, each metaphor “inherits” the structure of the metaphor above and brings greater specificity to various aspects of the metaphor. At Level 2, A PURPOSEFUL LIFE IS A JOURNEY specifies *events* as *significant life events* and *purposes* as *life goals*. At Level 3, LOVE IS A JOURNEY specifies the mapping of *relationship is a vehicle* since two *travelers* take part in the endeavor of love together in a relationship. Also at Level 3, A CAREER IS A JOURNEY specifies *life goals* as *career goals*.

The inheritance and specificity of the additional levels affects the mappings and the resulting metaphoric linguistic expressions. This is illustrated in Table B.1 (below) which traces metaphoric linguistic expressions up the inheritance hierarchy. The table contains four quadrants: Q1, Q2, Q3, Q4 in left-to-right, top-to-bottom order. The top two quadrants contain metaphoric linguistic expressions from the LOVE IS A JOURNEY conceptual metaphor along with the corresponding mappings. The bottom two quadrants contain the corresponding mappings from the A PURPOSEFUL LIFE IS A JOURNEY and Event Structure metaphors. The lines of the corresponding mappings and expressions are indexed with a letter (*a-g*) to indicate the correspondence between the lines in the top half and the bottom half.

One notices that not all mappings in the LOVE IS A JOURNEY metaphor have corresponding mappings in the A PURPOSEFUL LIFE IS A JOURNEY and EVENT STRUCTURE metaphors because they contain notions introduced by the greater specificity of the lower-level metaphors. The Event Structure Metaphor does not contain the notion of a traveler, vehicle, or decision (mappings *a*, *b*, and *f*, respectively). Although the metaphoric expression *I am spinning my wheels* can be uttered as part of the A PURPOSEFUL LIFE IS A JOURNEY metaphor, it would be an entailment: *the person leading a life is a traveler*; on the other hand, LOVE IS A JOURNEY contains a clear mapping of *vehicle* to *relationship* (mapping *b*). At the same time, some mappings are not (or slightly) altered between Level 2 and Level 3 since the concepts are essentially the same even though they may refer to different situations (mappings *d-g*).

Q1	LOVE IS A JOURNEY Linguistic Expression	Q2	LOVE IS A JOURNEY Mapping
a	<i>we are getting nowhere</i>	a	<i>the lovers are the travelers</i>
b	<i>we are spinning our wheels</i>	b	<i>the love relationship itself is the vehicle</i>
c	<i>we've been here before</i>	c	<i>events in the relationship are the journey</i>
d	<i>we have come very far in our relationship</i>	d	<i>the progress made is the distance covered</i>
e	<i>we need to get over this problem</i>	e	<i>the difficulties experienced are the obstacles encountered</i>
f	<i>we are at a fork in the road</i>	f	<i>choices about what to do are decisions about which way to go</i>
g	<i>we need to get to the point where we understand each other</i>	g	<i>the goal(s) of the relationship are the destination of the journey</i>
Q3	A PURPOSEFUL LIFE IS A JOURNEY Mapping	Q4	Event Structure Metaphor Mapping
a	<i>the person leading a life is a traveler</i>	a	<i>N/A</i>
b	<i>N/A</i>	b	<i>N/A</i>
c	<i>life events are the journey</i>	c	<i>N/A</i>
d	<i>the progress made is the distance covered</i>	d	<i>progress made is distance traveled or distance from goal</i>
e	<i>the difficulties experienced are the obstacles encountered</i>	e	<i>difficulties are impediments to motion</i>
f	<i>choices about what to do are decisions about which way to go</i>	f	<i>N/A</i>
g	<i>the goal(s) of life are the destination of the journey</i>	g	<i>purposes are destinations</i>

Table B.1: Metaphoric linguistic expressions traced to mappings in the inheritance hierarchy.

Appendix C

Additional Tables

C.1 MIP Analysis of Prepositions

C.1.1 Literal Prepositions

¹Full title is *F In Front Of, Face To Face, In Back Of, Behind*.

²Full title is *G Opposite, Over Against, Across From, Offshore From*.

Greek	Transliteration	Literal Gloss	LN Number	Context Domain	Context Subdomain
χωρίς	<i>chōris</i>	“separately”	63.31	63 Whole, Unite, Part, Divide	G Separate
εις	<i>eis</i>	“inside”	83.13	83 Spacial Positions	C Among, Between, In, Inside
εις	<i>eis</i>	“among”	83.9	83 Spacial Positions	C Among, Between, In, Inside
έν	<i>en</i>	“in”	83.13	83 Spacial Positions	C Among, Between, In, Inside
έν	<i>en</i>	“among”	83.9	83 Spacial Positions	C Among, Between, In, Inside
έπί	<i>epi</i>	“among”	83.9	83 Spacial Positions	C Among, Between, In, Inside
κατά	<i>kata</i>	“among”	83.12	83 Spacial Positions	C Among, Between, In, Inside
παρά	<i>para</i>	“among”	83.9	83 Spacial Positions	C Among, Between, In, Inside
πρός	<i>pros</i>	“among”	83.9	83 Spacial Positions	C Among, Between, In, Inside
έκτός	<i>ektos</i>	“outside”	83.20	83 Spacial Positions	D Around, About, Outside
έν	<i>en</i>	“at”	83.23	83 Spacial Positions	E At, Beside, Near, Far
έγγύς	<i>engys</i>	“near”	83.26	83 Spacial Positions	E At, Beside, Near, Far
έπί	<i>epi</i>	“at”	83.23	83 Spacial Positions	E At, Beside, Near, Far
παρά	<i>para</i>	“at”	83.25	83 Spacial Positions	E At, Beside, Near, Far
πρός	<i>pros</i>	“at”	83.24	83 Spacial Positions	E At, Beside, Near, Far
έμπροσθεν	<i>emprosten</i>	“in front of”	83.33	83 Spacial Positions	F In Front Of, Behind ¹
ένώπιον	<i>enōpion</i>	“in front of”	83.33	83 Spacial Positions	F In Front Of, Behind
έπί	<i>epi</i>	“before”	83.35	83 Spacial Positions	F In Front Of, Behind
άπέναντι	<i>apenanti</i>	“opposite”	83.42	83 Spacial Positions	G Opposite, Over Against ²
κατέναντι	<i>katenanti</i>	“opposite”	83.42	83 Spacial Positions	G Opposite, Over Against
εις	<i>eis</i>	“on”	83.47	83 Spacial Positions	H On, Upon, On the Surface Of
έν	<i>en</i>	“on”	83.47	83 Spacial Positions	H On, Upon, On the Surface Of
έπί	<i>epi</i>	“upon”	83.46	83 Spacial Positions	H On, Upon, On the Surface Of
ύπεράνω	<i>hyperanō</i>	“above”	83.49	83 Spacial Positions	I Above, Below
ύπό	<i>hypo</i>	“under”	83.51	83 Spacial Positions	I Above, Below
ύπερέκεινα	<i>hyperekeina</i>	“beyond”	83.55	83 Spacial Positions	J Beyond, On the Other Side Of
άπό	<i>apo</i>	“from”	84.3	84 Spacial Extensions	A Extension From a Source
έκ	<i>ek</i>	“out of”	84.4	84 Spacial Extensions	A Extension From a Source
άχρι	<i>achri</i>	“as far as”	84.19	84 Spacial Extensions	B Extension To a Goal
εις	<i>eis</i>	“to”	84.16	84 Spacial Extensions	B Extension To a Goal
εις	<i>eis</i>	“into”	84.22	84 Spacial Extensions	B Extension To a Goal
έν	<i>en</i>	“into”	84.22	84 Spacial Extensions	B Extension To a Goal
έπί	<i>epi</i>	“toward”	84.17	84 Spacial Extensions	B Extension To a Goal
κατά	<i>kata</i>	“down, toward”	84.21	84 Spacial Extensions	B Extension To a Goal
μέχρι	<i>mechri</i>	“as far as”	84.19	84 Spacial Extensions	B Extension To a Goal
πρός	<i>pros</i>	“to”	84.18	84 Spacial Extensions	B Extension To a Goal
διά	<i>dia</i>	“through”	84.29	84 Spacial Extensions	C Extension Along a Path

Table C.1: Literal preposition senses.

C.1.2 Time Metaphor Prepositions

Greek	Transliteration	Gloss	LN Number	Domain	Subdomain
πρός	pros	“at”	67.16	67 Time	A A Point of Time without Reference to Other Points ³
		“at”	83.24	83 Spacial Positions	E At, Beside, Near, Far
ἐν	en	“when”	67.33	67 Time	B A Point of Time with Reference to Other Points ⁴
		“at”	83.23	83 Spacial Positions	E At, Beside, Near, Far
ἐγγύς	engys	“near”	67.61	67 Time	B A Point of Time with Reference to Other Points
		“near”	83.26	83 Spacial Positions	E At, Beside, Near, Far
ἐπί	epi	“at, when”	67.33	67 Time	B A Point of Time with Reference to Other Points
		“at”	83.23	83 Spacial Positions	E At, Beside, Near, Far
ὀπίσω	opisō	“behind”	67.17	67 Time	B A Point of Time with Reference to Other Points
		“behind”	83.40	83 Spacial Positions	F In Front Of, Behind ⁵
πρό	pro	“before”	67.17	67 Time	B A Point of Time with Reference to Other Points
		“in front of”	83.33	83 Spacial Positions	F In Front Of, Face To Face, In Back Of, Behind
κατά	kata	“when”	67.33	67 Time	B A Point of Time with Reference to Other Points
		“opposite”	83.44	83 Spacial Positions	G Opposite, Over Against ⁶
μετά	meta	“after”	67.48	67 Time	B A Point of Time with Reference to Other Points
		“beyond”	83.56	83 Spacial Positions	J Beyond, On the Other Side Of
κατά	kata	“about”	67.35	67 Time	B A Point of Time with Reference to Other Points
		“along”	84.30	84 Spacial Extensions	C Extension Along a Path
εἰς	eis	“for”	67.117	67 Time	E Duration of Time without Reference to Points or Units ⁷
		“into”	84.22	84 Spacial Extensions	B Extension To a Goal
ἀπό	apo	“since”	67.131	67 Time	F Duration of Time with Reference to Some Point ⁸
		“from”	84.3	84 Spacial Extensions	A Extension From a Source
ἐκ	ek	“since”	67.131	67 Time	F Duration of Time with Reference to Some Point
		“out of”	84.4	84 Spacial Extensions	A Extension From a Source
ἄχρι	achri	“until”	67.119	67 Time	F Duration of Time with Reference to Some Point
		“as far as”	84.19	84 Spacial Extensions	B Extension To a Goal
εἰς	eis	“until”	67.119	67 Time	F Duration of Time with Reference to Some Point
		“to”	84.16	84 Spacial Extensions	B Extension To a Goal
ἕως	heōs	“until”	67.119	67 Time	F Duration of Time with Reference to Some Point
		“as far as”	84.19	84 Spacial Extensions	B Extension To a Goal
μέχρι	mechri	“until”	67.119	67 Time	F Duration of Time with Reference to Some Point
		“as far as”	84.19	84 Spacial Extensions	B Extension To a Goal
ἐν	en	“during”	67.136	67 Time	G Duration of Time with Reference to Some Unit ⁹
		“in”	83.13	83 Spacial Positions	C Among, Between, In, Inside
ἐπί	epi	“during”	67.136	67 Time	G Duration of Time with Reference to Some Unit
		“at”	83.23	83 Spacial Positions	E At, Beside, Near, Far
διά	dia	“during”	67.136	67 Time	G Duration of Time with Reference to Some Unit
		“along”	84.32	84 Spacial Extensions	C Extension Along a Path
διά	dia	“throughout”	67.140	67 Time	G Duration of Time with Reference to Some Unit
		“along”	84.32	84 Spacial Extensions	C Extension Along a Path
εἰς	eis	“at”	67.160	67 Time	H Indefinite Units ¹⁰
		“on”	83.47	83 Spacial Positions	H On, Upon, On the Surface Of

Table C.2: Time metaphor preposition senses.

³Full title is *A A Point of Time without Reference to Other Points of Time: Time, Occasion, Ever, Often*.

⁴Full title is *B A Point of Time with Reference to Other Points of Time: Before, Long Ago, Now, At the Same Time, When, About, After*.

⁵Full title is *F In Front Of, Face To Face, In Back Of, Behind*.

⁶Full title is *G Opposite, Over Against, Across From, Offshore From*.

⁷Full title is *E Duration of Time without Reference to Points or Units of Time: Time, Spend Time, Always, Eternal, Old, Immediately, Young*.

⁸Full title is *F Duration of Time with Reference to Some Point of Time: Until, Delay, Still, From*.

⁹Full title is *G Duration of Time with Reference to Some Unit of Time: During, In, While, Throughout*.

¹⁰Full title is *H Indefinite Units of Time: Age, Lifetime, Interval, Period*.

C.2 Distributions of Prepositions According to Usage

Note: Percentages in the following tables are computed with respect to the entire corpus.

Preposition	Transliteration	Abstract	Time	Literal	Total
ἐπί	epi	7.69%	1.18%	2.96%	11.83%
ἐν	en	7.10%	1.18%	2.96%	11.24%
πρός	pros	6.51%	0.59%	1.78%	8.88%
ἐκ	ek	5.33%	0.59%	0.59%	6.51%
παρά	para	5.33%	0.00%	1.18%	6.51%
εἰς	eis	4.73%	1.78%	2.96%	9.47%
μετά	meta	4.14%	0.59%	0.00%	4.73%
διά	dia	3.55%	1.18%	0.59%	5.33%
κατά	kata	2.96%	1.18%	1.18%	5.33%
ὑπέρ	hyper	2.96%	0.00%	0.00%	2.96%
περί	peri	2.37%	0.00%	0.00%	2.37%
ἀπό	apo	1.78%	0.59%	0.59%	2.96%
ὑπό	hypo	1.78%	0.00%	0.59%	2.37%
ἀντί	anti	1.78%	0.00%	0.00%	1.78%
ἕως	heōs	1.18%	0.59%	0.00%	1.78%
ἐκτός	ektos	1.18%	0.00%	0.59%	1.78%
μέχρι	mechri	0.59%	0.59%	0.59%	1.78%
ὀπίσω	opisō	0.59%	0.59%	0.00%	1.18%
ἔμπροσθεν	emprosthen	0.59%	0.00%	0.59%	1.18%
ἐνώπιον	enōpion	0.59%	0.00%	0.59%	1.18%
κατέναντι	katenanti	0.59%	0.00%	0.59%	1.18%
ὑπεράνω	hyperanō	0.59%	0.00%	0.59%	1.18%
χωρίς	chōris	0.59%	0.00%	0.59%	1.18%
κατενώπιον	katenōpion	0.59%	0.00%	0.00%	0.59%
μεταξύ	metaxy	0.59%	0.00%	0.00%	0.59%
ἄχρι	achri	0.00%	0.59%	0.59%	1.18%
ἐγγύς	engys	0.00%	0.59%	0.59%	1.18%
πρό	pro	0.00%	0.59%	0.00%	0.59%
ἀπέναντι	apenanti	0.00%	0.00%	0.59%	0.59%
ὑπερέκεινα	hyperekeina	0.00%	0.00%	0.59%	0.59%
<i>Total</i>		65.68%	12.43%	21.89%	100.00%

Table C.3: Preposition usage, list percentages.

Preposition	Transliteration	Abstract	Time	Literal	Total
ἐν	en	22.74%	1.81%	9.94%	34.50%
εἰς	eis	11.13%	0.31%	2.51%	13.95%
διά	dia	9.56%	0.28%	0.24%	10.08%
κατά	kata	6.17%	0.07%	0.10%	6.35%
ἐκ	ek	5.58%	0.03%	1.26%	6.87%
ὑπέρ	hyper	3.45%	0.00%	0.00%	3.45%
πρός	pros	3.07%	0.03%	1.78%	4.88%
ἐπί	epi	2.93%	0.38%	1.15%	4.46%
ἀπό	apo	2.83%	0.38%	0.03%	3.24%
μετά	meta	2.44%	0.14%	0.00%	2.58%
ὑπό	hypo	2.37%	0.00%	0.10%	2.48%
περί	peri	1.81%	0.00%	0.00%	1.81%
παρά	para	1.33%	0.00%	0.07%	1.40%
χωρίς	chōris	0.45%	0.00%	0.10%	0.56%
ἐνώπιον	enōpion	0.24%	0.00%	0.35%	0.59%
ἐκτός	ektos	0.17%	0.00%	0.03%	0.21%
ἀντί	anti	0.17%	0.00%	0.00%	0.17%
ἕως	heōs	0.10%	0.35%	0.00%	0.45%
κατενώπιον	katenōpion	0.07%	0.00%	0.00%	0.07%
μέχρι	mechri	0.03%	0.17%	0.07%	0.28%
ὀπίσω	opisō	0.03%	0.03%	0.00%	0.07%
ἔμπροσθεν	emprosthen	0.03%	0.00%	0.21%	0.24%
κατέναντι	katenanti	0.03%	0.00%	0.07%	0.10%
ὑπεράνω	hyperanō	0.03%	0.00%	0.03%	0.07%
μεταξύ	metaxy	0.03%	0.00%	0.00%	0.03%
ἄχρι	achri	0.00%	0.45%	0.03%	0.49%
πρό	pro	0.00%	0.35%	0.00%	0.35%
ἐγγύς	engys	0.00%	0.07%	0.10%	0.17%
ἀπέναντι	apenanti	0.00%	0.00%	0.03%	0.03%
ὑπέρκεινα	hyperekeina	0.00%	0.00%	0.03%	0.03%
<i>Total</i>		76.84%	4.88%	18.28%	100.00%

Table C.4: Preposition usage corpus percentages.

C.3 Time Metaphors

Category	Image Schemas	List Freq.	Corpus Freq.	% List	% Corpus
SPACE	3	20	117	95.24%	83.57%
CONTAINMENT	1	1	23	4.76%	16.43%
<i>Total</i>	4	21	140	100.00%	100.00%

Table C.5: Image schema categories of time metaphors.

Image Schema	List Freq.	Corpus Freq.	% List	% Corpus
SPACE/PATH	13	62	61.90%	44.29%
SPACE/LOCATION	5	43	23.81%	30.71%
CONTAINMENT/CONTAINER	1	23	4.76%	16.43%
SPACE/FRONT-BACK	1	10	4.76%	7.14%
SPACE/NEAR-FAR	1	2	4.76%	1.43%
<i>Total</i>	21	140	100.00%	100.00%

Table C.6: Image schemas of time metaphors.

C.4 Overview of Prepositions

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
SPACE/PATH	ἀπό (<i>apo</i>)	from (dissociation)	89.122	from (extension)	84.3
		from (source)	90.15		
		by (agent)	90.7		
SPACE/PATH	διά (<i>dia</i>)	on account of (reason)	89.26	through (extension)	84.29
		through (means)	89.76		
		by (instrument)	90.8		
		by (agent)	90.4		
		because of (reason participant)	90.44		
		on behalf of (benefaction)	90.38		
SPACE/PATH	ἐκ (<i>ek</i>)	from (dissociation)	89.121	out of (extension)	84.4
		because of (reason)	89.25		
		by (means)	89.77		
		with (manner)	89.85		
		with (instrument)	90.12		
		from (source)	90.16		
		from (derivation)	89.3		
		of (substance)	89.142		
		one of (part-whole)	63.20		
		CONTAINMENT/IN-OUT			
MULTIPLICITY/PART-WHOLE					
SPACE/LOCATION	μετά (<i>meta</i>)	with (association)	89.108	among (location)	83.9
		with (accompanying object)	89.109		
		with (combinative)	89.123		
		with (attendant circumstances)	89.79		
		with (experiencer)	90.60		
		with (benefaction)	90.42		
SPACE/LOCATION	περί (<i>peri</i>)	against (opposition)	90.32	around (location)	83.18
		because (reason)	89.36		
SPACE/CENTER-PERIPHERY		with regard to (specification)	89.6		
		about (content)	90.24		
		on behalf of (benefaction)	90.39		

Table C.7: Prepositions with multiple metaphoric meanings and one basic meaning.

Image Schema	Preposition	Contextual Meaning		Basic Meaning			
		Gloss	LN	Gloss	LN		
SPACE/PATH	εἰς (<i>eis</i>)	in order to (purpose)	89.57	to (extension)	84.16		
		so that (result)	89.48				
		to (change of state)	13.62				
		with reference to (content)	90.23				
		on behalf of (benefaction)	90.41				
		to (experiencer)	90.59				
SPACE/SCALE		to the point of (degree)	78.51				
CONTAINMENT/CONTAINER		by (means)	89.76	inside (location)	83.13		
SPACE/LOCATION	ἐν (<i>en</i>)	with (attendant circumstances)	89.80	among (location)	83.9		
CONTAINMENT/CONTAINER		in (state)	13.8	in (location)	83.13		
		because (reason)	89.26				
		by (means)	89.76				
		with (manner)	89.84				
		with (instrument)	90.10				
		by (agent)	90.6				
		by (guarantor)	90.30				
		in union with (association)	89.119				
		of (substance)	89.141				
		with regard to (specification)	89.5				
		to (experiencer)	90.56				
		SPACE/LOCATION	ἐπί (<i>epi</i>)			in view of (basis)	89.13
SPACE/UP-DOWN	because of (reason)	89.27					
	by (instrument)	90.9					
	by (agent)	90.5					
	concerning (content)	90.23					
	upon (responsibility)	90.17					
	over (authority)	37.9					
SPACE/SCALE	and (addition)	89.101		toward (extension)	84.17		
SPACE/PATH	up to (degree)	78.51					
	in order to (purpose)	89.60					
FORCE/RESISTANCE	to (experiencer)	90.57					
FORCE/ENABLEMENT	against (opposition)	90.34	beyond	LSJ B.I			
SPACE/SCALE	for (benefaction)	90.40					
SPACE/UP-DOWN	beyond (degree)	78.29					
SPACE/LOCATION	above (status)	87.30			over	LSJ A.I.1	
	because of (reason)	89.28					
	about (content)	90.24					
	on behalf of (benefaction)	90.36					

Table C.8: Prepositions with multiple metaphoric meanings and two basic meanings.

Image Schema	Preposition	Contextual Meaning		Basic Meaning	
		Gloss	LN	Gloss	LN
SPACE/LOCATION	<i>κατά</i> (<i>kata</i>)	with (association)	89.113	among (location)	83.12
SPACE/PATH		with regard to (specification)	89.4	facing toward (location)	83.45
		in accordance with (isomorphic)	89.8	along (extension)	84.30
FORCE/RESISTANCE		from ... to (distributive)	89.90	throughout (extension)	84.31
		against (opposition)	90.31	opposite (location)	83.44
SPACE/LOCATION	<i>παρά</i> (<i>para</i>)	with (association)	89.111	among (location)	83.9
SPACE/SCALE		in opinion of (view-point participant)	90.20	at (location)	83.25
		for (agent)	90.3		
		less (quantity)	59.76		
CONTAINMENT/CONTAINER		beyond (degree)	78.29	beyond	LSJ C.III
		instead of (contrast)	89.132		
SPACE/PATH		contrary to (opposition)	89.137	from (extension)	84.5
SPACE/LOCATION		because of (reason)	89.25	among (location)	83.9
SPACE/SCALE		from (source)	90.14		
SPACE/SCALE		with (association)	89.112	at (location)	83.24
	SPACE/PATH	about (content)	90.25	to (extension)	84.18
SPACE/PATH	to the point of (degree)	78.51			
	for (purpose)	89.60			
	end in (result)	89.44			
	with regard to (specification)	89.7			
	according to (correspondence)	89.9			
	in opinion of (view-point participant)	90.20			
to (experiencer)	90.58	against (extension)	84.23		
FORCE/RESISTANCE	compared to (comparison)			64.17	
	against (opposition)	90.33			

Table C.9: Prepositions with multiple metaphoric meanings and three or more basic meanings.

C.5 Image Schemas

Image Schema	List Freq.	Corpus Freq.	% List	% Corpus
SPACE/PATH	36	1072	32.43%	48.66%
SPACE/LOCATION	32	351	29.73%	15.93%
CONTAINMENT/CONTAINER	12	596	10.81%	27.05%
SPACE/SCALE	11	32	9.91%	1.45%
SPACE/UP-DOWN	6	75	5.41%	3.40%
FORCE/RESISTANCE	3	25	2.70%	1.13%
CONTAINMENT/IN-OUT	3	6	2.70%	0.27%
MULTIPLICITY/PART-WHOLE	2	28	1.80%	1.27%
SPACE/CENTER-PERIPHERY	1	8	0.90%	0.36%
FORCE/ENABLEMENT	1	5	0.90%	0.23%
MULTIPLICITY/LINKAGE	1	2	0.90%	0.09%
MULTIPLICITY/MATCHING	1	2	0.90%	0.09%
SPACE/FRONT-BACK	1	1	0.90%	0.05%
<i>Total</i>	111	2203	100.00%	100.00%

Table C.10: Image schemas of abstract metaphors ordered by list frequency.

C.6 Contextual Domains

Domain Type	Domains	List Freq.	Corpus Freq.	% List	% Corpus
Multiple Image Schema	15	72	1507	64.86%	68.41%
Single Image Schema	25	39	696	35.14%	31.59%
<i>Total</i>	40	111	2203	100.00%	100.00%

Table C.11: Multiple and single image schema contextual domains.

Domain	Image Schemas	List Freq.	Corpus Freq.	% List	% Corpus
89/D Specification	3	4	210	3.60%	9.53%
89/T Association	2	7	209	6.31%	9.49%
89/L Means	2	4	139	3.60%	6.31%
89/G Cause and/or Reason	5	9	137	8.11%	6.22%
89/N Manner	2	2	123	1.80%	5.58%
90/I Benefaction	4	7	122	6.31%	5.54%
90/B Instrument	3	4	119	3.60%	5.40%
90/A Agent	4	6	117	5.41%	5.31%
90/F Content	2	5	115	4.50%	5.22%
90/M Experiencer	3	5	85	4.50%	3.86%
89/U Dissociation	3	4	67	3.60%	3.04%
90/H Opposition	2	4	27	3.60%	1.23%
90/E Viewpoint Participant	2	6	18	5.41%	0.82%
89/W Contrast	2	3	13	2.70%	0.59%
89/Y Substance	2	2	6	1.80%	0.27%
<i>Total</i>	42 ¹¹	72	1507	64.85%	68.41%

Table C.12: Multiple image schema contextual domains.

¹¹Total of contextual domain/image schema pairs.

Domain	List Freq.	Corpus Freq.	% List	% Corpus
89/I Purpose	3	134	2.70%	6.08%
89/E Relations Involving Correspondences	2	131	1.80%	5.95%
90/C Source of Event or Activity	3	114	2.70%	5.17%
90/J Reason Participant	1	60	0.90%	2.72%
89/M Attendant Circumstances	2	46	1.80%	2.09%
89/H Result	2	38	1.80%	1.72%
13/B Change of State	1	38	0.90%	1.72%
13/A State	1	31	0.90%	1.41%
37/A Control, Restrain	2	24	1.80%	1.09%
78/E Up To, As Much As, To the Degree That	5	15	4.50%	0.68%
63/D Part	1	15	0.90%	0.68%
89/P Distribution	1	11	0.90%	0.50%
89/C Derivation	1	10	0.90%	0.45%
78/B More Than, Less Than Comparative Degree	2	9	1.80%	0.41%
87/C High Status or Rank	2	4	1.80%	0.18%
89/F Basis	1	3	0.90%	0.14%
89/Q Addition	1	3	0.90%	0.14%
57/J Exchange	1	2	0.90%	0.09%
89/V Combinative Relation	1	2	0.90%	0.09%
36/D Follow, Be a Disciple	1	1	0.90%	0.05%
59/B Much, Little Masses, Collectives, Extensions	1	1	0.90%	0.05%
59/H Add, Subtract	1	1	0.90%	0.05%
64 Comparison	1	1	0.90%	0.05%
90/D Responsibility	1	1	0.90%	0.05%
90/G Guarantor Participant with Oaths	1	1	0.90%	0.05%
<i>Total</i>	39	696	35.10%	31.61%

Table C.13: Single image schema contextual domains, list frequencies.

Domain/Subdomain	SPACE/LOCATION	SPACE/PATH	CONTAINMENT/CONTAINER	CONTAINMENT/IN-OUT	FORCE/RESISTANCE	SPACE/UP-DOWN	MULTIPLICITY/PART-WHOLE	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	SPACE/CENTER-PERIPHERY	SPACE/SCALE	MULTIPLICITY/MATCHING	SPACE/FRONT-BACK	Total
89/G Cause and/or Reason	3	3	1	0	0	1	0	0	1	0	0	0	0	9
90/I Benefaction	3	2	0	0	0	0	0	1	0	1	0	0	0	7
90/A Agent	2	2	1	0	0	1	0	0	0	0	0	0	0	6
90/M Experiencer	1	3	1	0	0	0	0	0	0	0	0	0	0	5
90/B Instrument	1	2	1	0	0	0	0	0	0	0	0	0	0	4
89/D Specification	1	2	1	0	0	0	0	0	0	0	0	0	0	4
89/U Dissociation	0	2	0	1	0	0	1	0	0	0	0	0	0	4
89/T Association	6	0	1	0	0	0	0	0	0	0	0	0	0	7
90/E Viewpoint Participant	5	1	0	0	0	0	0	0	0	0	0	0	0	6
90/F Content	4	1	0	0	0	0	0	0	0	0	0	0	0	5
89/L Means	0	2	2	0	0	0	0	0	0	0	0	0	0	4
90/H Opposition	1	0	0	0	3	0	0	0	0	0	0	0	0	4
89/W Contrast	0	0	2	1	0	0	0	0	0	0	0	0	0	3
89/Y Substance	0	0	1	1	0	0	0	0	0	0	0	0	0	2
89/N Manner	0	1	1	0	0	0	0	0	0	0	0	0	0	2
Total	27	21	12	3	3	2	1	1	1	1	0	0	0	72

Table C.14: Multiple image schema domains, list frequencies.

Domain/Subdomain	SPACE/PATH	SPACE/SCALE	SPACE/LOCATION	SPACE/UP-DOWN	CONTAINMENT/CONTAINER	MULTIPLICITY/MATCHING	MULTIPLICITY/PART-WHOLE	SPACE/FRONT-BACK	CONTAINMENT/IN-OUT	FORCE/ENABLEMENT	FORCE/RESISTANCE	MULTIPLICITY/LINKAGE	SPACE/CENTER-PERIPHERY	Total
78/E Up To, As Much As, To the Degree That	0	5	0	0	0	0	0	0	0	0	0	0	0	5
90/C Source of Event or Activity	3	0	0	0	0	0	0	0	0	0	0	0	0	3
89/I Purpose	3	0	0	0	0	0	0	0	0	0	0	0	0	3
89/M Attendant Circumstances	0	0	2	0	0	0	0	0	0	0	0	0	0	2
37/A Control, Restrain	0	0	0	2	0	0	0	0	0	0	0	0	0	2
89/E Relations Involving Correspondences	2	0	0	0	0	0	0	0	0	0	0	0	0	2
87/C High Status or Rank	0	0	0	2	0	0	0	0	0	0	0	0	0	2
78/B More Than, Less Than	0	2	0	0	0	0	0	0	0	0	0	0	0	2
89/H Result	2	0	0	0	0	0	0	0	0	0	0	0	0	2
13/B Change of State	1	0	0	0	0	0	0	0	0	0	0	0	0	1
59/H Add, Subtract	0	1	0	0	0	0	0	0	0	0	0	0	0	1
36/D Follow, Be a Disciple	0	0	0	0	0	0	0	1	0	0	0	0	0	1
90/J Reason Participant	1	0	0	0	0	0	0	0	0	0	0	0	0	1
57/J Exchange	0	0	0	0	0	1	0	0	0	0	0	0	0	1
90/G Guarantor Participant with Oaths	0	0	0	0	1	0	0	0	0	0	0	0	0	1
59/B Much, Little	0	1	0	0	0	0	0	0	0	0	0	0	0	1
64 Comparison	1	0	0	0	0	0	0	0	0	0	0	0	0	1
90/D Responsibility	0	0	1	0	0	0	0	0	0	0	0	0	0	1
63/D Part	0	0	0	0	0	0	1	0	0	0	0	0	0	1
89/C Derivation	1	0	0	0	0	0	0	0	0	0	0	0	0	1
89/V Combinative Relation	0	0	1	0	0	0	0	0	0	0	0	0	0	1
89/F Basis	0	0	1	0	0	0	0	0	0	0	0	0	0	1
89/Q Addition	0	1	0	0	0	0	0	0	0	0	0	0	0	1
89/P Distribution	1	0	0	0	0	0	0	0	0	0	0	0	0	1
13/A State	0	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	15	10	6	4	1	1	1	1	0	0	0	0	0	39

Table C.15: Single image schema domains, list frequencies.

C.7 Basic Domains

Domain	Subdomains	Image Schemas	List Freq.	Corpus Freq.	% List	% Corpus
83 Spatial Positions	8	11	64	1092	57.66%	49.57%
84 Spatial Extensions	3	6	46	1098	41.44%	49.84%
63 Whole, Unite, Part, Divide	1	1	1	13	0.90%	0.59%
<i>Total</i>	12	18 ¹²	111	2203	100.00%	100.00%

Table C.16: Image schemas and basic domains.

Domain						
Submain	Image Schemas	List Freq.	Corpus Freq.	% List	% Corpus	
83 Spatial Positions						
C Among, Between, In, Inside	2	24	742	21.62%	33.68%	
I Above, Below	2	8	161	7.21%	7.31%	
H On, Upon, On the Surface Of	3	8	52	7.21%	2.36%	
D Around, About, Outside	3	6	57	5.41%	2.59%	
G Opposite, Over Against ¹³	5	6	42	5.41%	1.91%	
E At, Beside, Near, Far	2	4	9	3.60%	0.41%	
F In Front Of, Behind ¹⁴	2	4	11	3.60%	0.50%	
J Beyond, On the Other Side Of	2	4	18	3.60%	0.82%	
84 Spatial Extensions						
B Extension To a Goal	4	24	429	21.62%	19.47%	
A Extension From a Source	3	14	258	12.61%	11.71%	
C Extension Along a Path	1	8	411	7.21%	18.66%	
63 Whole, Unite, Part, Divide						
G Separate	1	1	13	0.90%	0.59%	
<i>Total</i>	30	111	2203	100.00%	100.00%	

Table C.17: Image schemas and basic domains.

¹²Total of basic domain/image schema combinations.

¹³Original Louw-Nida title: *G Opposite, Over Against, Across From, Offshore From.*

¹⁴Original Louw-Nida title: *F In Front Of, Face To Face, In Back Of, Behind.*

Domain/Subdomain	SPACE/PATH	CONTAINMENT/CONTAINER	SPACE/LOCATION	SPACE/UP-DOWN	SPACE/SCALE	MULTIPLICITY/PART-WHOLE	FORCE/RESISTANCE	SPACE/CENTER-PERIPHERY	CONTAINMENT/IN-OUT	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	MULTIPLICITY/MATCHING	SPACE/FRONT-BACK	Total
83/C Among, Between, In, Inside	0	590	152	0	0	0	0	0	0	0	0	0	0	742
84/B Extension To a Goal	396	0	0	0	16	0	12	0	0	5	0	0	0	429
84/C Extension Along a Path	411	0	0	0	0	0	0	0	0	0	0	0	0	411
84/A Extension From a Source	242	0	0	0	0	15	0	0	1	0	0	0	0	258
83/I Above, Below	0	0	89	72	0	0	0	0	0	0	0	0	0	161
83/D Around, About, Outside	0	0	44	0	0	0	0	8	5	0	0	0	0	57
83/H On, Upon, On the Surface Of	0	0	46	3	3	0	0	0	0	0	0	0	0	52
83/G Opposite, Over Against, Across From, Offshore From	23	0	2	0	0	0	13	0	0	0	2	2	0	42
83/J Beyond, On the Other Side Of	0	9	0	0	9	0	0	0	0	0	0	0	0	18
63/G Separate	0	0	0	0	0	13	0	0	0	0	0	0	0	13
83/F In Front Of, Face To Face, In Back Of, Behind	0	0	10	0	0	0	0	0	0	0	0	0	1	11
83/E At, Beside, Near, Far	0	0	8	0	1	0	0	0	0	0	0	0	0	9
Total	1072	599	351	75	29	28	25	8	6	5	2	2	1	2203

Table C.18: Basic domains and image schemas, corpus frequencies.

Domain/Subdomain	SPACE/PATH	SPACE/LOCATION	CONTAINMENT/CONTAINER	SPACE/SCALE	SPACE/UP-DOWN	CONTAINMENT/IN-OUT	FORCE/RESISTANCE	MULTIPLICITY/PART-WHOLE	FORCE/ENABLEMENT	MULTIPLICITY/LINKAGE	MULTIPLICITY/MATCHING	SPACE/CENTER-PERIPHERY	SPACE/FRONT-BACK	Total
83/C Among, Between, In, Inside	0	13	11	0	0	0	0	0	0	0	0	0	0	24
84/B Extension To a Goal	15	0	0	6	0	0	2	0	1	0	0	0	0	24
84/A Extension From a Source	12	0	0	0	0	1	0	1	0	0	0	0	0	14
83/H On, Upon, On the Surface Of	0	6	0	1	1	0	0	0	0	0	0	0	0	8
83/I Above, Below	0	3	0	0	5	0	0	0	0	0	0	0	0	8
84/C Extension Along a Path	8	0	0	0	0	0	0	0	0	0	0	0	0	8
83/D Around, About, Outside	0	3	0	0	0	2	0	0	0	0	0	1	0	6
83/G Opposite, Over Against, Across From, Offshore From	1	2	0	0	0	0	1	0	0	1	1	0	0	6
83/E At, Beside, Near, Far	0	3	0	1	0	0	0	0	0	0	0	0	0	4
83/F In Front Of, Face To Face, In Back Of, Behind	0	3	0	0	0	0	0	0	0	0	0	0	1	4
83/J Beyond, On the Other Side Of	0	0	2	2	0	0	0	0	0	0	0	0	0	4
63/G Separate	0	0	0	0	0	0	0	1	0	0	0	0	0	1
Total	36	33	13	10	6	3	3	2	1	1	1	1	1	111

Table C.19: Basic domains and image schemas, list frequencies.

C.8 Intersections of Prepositions with Contextual and Basic Domains

	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/A Extension From a Source	83/I Above, Below	83/H On, Upon, On the Surface Of	84/C Extension Along a Path	83/D Around, About, Outside	83/G Opposite, Over Against, Across From, Offshore From	83/E At, Beside, Near, Far	83/F In Front Of, Face To Face, In Back Of, Behind	83/J Beyond, On the Other Side Of	63/G Separate	Total
89/G Cause and/or Reason	1	0	2	2	1	1	1	1	0	0	0	0	9
90/I Benefaction	1	2	0	1	0	1	1	1	0	0	0	0	7
89/T Association	7	0	0	0	0	0	0	0	0	0	0	0	7
90/E Viewpoint Participant	0	1	0	0	0	0	0	1	1	3	0	0	6
90/A Agent	1	0	1	1	1	1	0	0	1	0	0	0	6
90/F Content	0	1	0	1	1	0	1	0	1	0	0	0	5
78/E Up To, As Much As, To the Degree That	0	5	0	0	0	0	0	0	0	0	0	0	5
90/M Experiencer	2	3	0	0	0	0	0	0	0	0	0	0	5
90/B Instrument	1	0	1	0	1	1	0	0	0	0	0	0	4
89/L Means	2	0	1	0	0	1	0	0	0	0	0	0	4
89/D Specification	1	1	0	0	0	0	1	1	0	0	0	0	4
89/U Dissociation	0	0	2	0	0	0	1	0	0	0	0	1	4
90/H Opposition	1	2	0	0	0	0	0	1	0	0	0	0	4
90/C Source of Event or Activity	0	0	3	0	0	0	0	0	0	0	0	0	3
89/W Contrast	0	0	0	0	0	0	1	0	0	0	2	0	3
89/I Purpose	0	3	0	0	0	0	0	0	0	0	0	0	3
89/Y Substance	1	0	1	0	0	0	0	0	0	0	0	0	2
89/N Manner	1	0	1	0	0	0	0	0	0	0	0	0	2
89/M Attendant Circumstances	2	0	0	0	0	0	0	0	0	0	0	0	2
37/A Control, Restrain	0	0	0	1	1	0	0	0	0	0	0	0	2
89/E Relations Involving Correspondences	0	1	0	0	0	1	0	0	0	0	0	0	2
87/C High Status or Rank	0	0	0	2	0	0	0	0	0	0	0	0	2
78/B More Than, Less Than	0	0	0	1	0	0	0	0	0	1	0	0	2
89/H Result	0	2	0	0	0	0	0	0	0	0	0	0	2
13/B Change of State	0	1	0	0	0	0	0	0	0	0	0	0	1
59/H Add, Subtract	0	0	0	0	0	0	0	0	1	0	0	0	1
36/D Follow, Be a Disciple	0	0	0	0	0	0	0	0	0	1	0	0	1
90/J Reason Participant	0	0	0	0	0	1	0	0	0	0	0	0	1
57/J Exchange	0	0	0	0	0	0	0	1	0	0	0	0	1
90/G Guarantor Participant with Oaths	1	0	0	0	0	0	0	0	0	0	0	0	1
59/B Much, Little	0	1	0	0	0	0	0	0	0	0	0	0	1
64 Comparison	0	1	0	0	0	0	0	0	0	0	0	0	1
90/D Responsibility	0	0	0	0	1	0	0	0	0	0	0	0	1
63/D Part	0	0	1	0	0	0	0	0	0	0	0	0	1
89/C Derivation	0	0	1	0	0	0	0	0	0	0	0	0	1
89/V Combinative Relation	1	0	0	0	0	0	0	0	0	0	0	0	1
89/F Basis	0	0	0	0	1	0	0	0	0	0	0	0	1
89/Q Addition	0	0	0	0	1	0	0	0	0	0	0	0	1
89/P Distribution	0	0	0	0	0	1	0	0	0	0	0	0	1
13/A State	1	0	0	0	0	0	0	0	0	0	0	0	1
Total	24	24	14	9	8	8	6	6	4	4	3	1	111

Table C.20: Intersection of contextual and basic domains, list frequencies.

	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/C Extension Along a Path	84/A Extension From a Source	83/I Above, Below	83/D Around, About, Outside	83/H On, Upon, On the Surface Of	83/G Opposite, Over Against, Across From, Offshore From	63/G Separate	83/J Beyond, On the Other Side Of	83/F In Front Of, Face To Face, In Back Of, Behind	83/E At, Beside, Near, Far	Total
89/D Specification	151	9	0	0	0	27	0	23	0	0	0	0	210
89/T Association	209	0	0	0	0	0	0	0	0	0	0	0	209
89/L Means	27	0	85	27	0	0	0	0	0	0	0	0	139
89/G Cause and/or Reason	26	0	38	28	16	2	25	2	0	0	0	0	137
89/I Purpose	0	134	0	0	0	0	0	0	0	0	0	0	134
89/E Relations Involving Correspondences	0	5	126	0	0	0	0	0	0	0	0	0	131
89/N Manner	118	0	0	5	0	0	0	0	0	0	0	0	123
90/I Benefaction	1	31	19	0	62	8	0	1	0	0	0	0	122
90/B Instrument	73	0	44	1	0	0	1	0	0	0	0	0	119
90/A Agent	39	0	28	4	42	0	2	0	0	0	0	2	117
90/F Content	0	69	0	0	16	15	14	0	0	0	0	1	115
90/C Source of Event or Activity	0	0	0	114	0	0	0	0	0	0	0	0	114
90/M Experiencer	11	74	0	0	0	0	0	0	0	0	0	0	85
89/U Dissociation	0	0	0	53	0	1	0	0	13	0	0	0	67
90/J Reason Participant	0	0	60	0	0	0	0	0	0	0	0	0	60
89/M Attendant Circumstances	46	0	0	0	0	0	0	0	0	0	0	0	46
89/H Result	0	38	0	0	0	0	0	0	0	0	0	0	38
13/B Change of State	0	38	0	0	0	0	0	0	0	0	0	0	38
13/A State	31	0	0	0	0	0	0	0	0	0	0	0	31
90/H Opposition	2	12	0	0	0	0	0	13	0	0	0	0	27
37/A Control, Restrain	0	0	0	0	21	0	3	0	0	0	0	0	24
90/E Viewpoint Participant	0	2	0	0	0	0	0	1	0	0	10	5	18
63/D Part	0	0	0	15	0	0	0	0	0	0	0	0	15
78/E Up To, As Much As, To the Degree That	0	15	0	0	0	0	0	0	0	0	0	0	15
89/W Contrast	0	0	0	0	0	4	0	0	0	9	0	0	13
89/P Distribution	0	0	11	0	0	0	0	0	0	0	0	0	11
89/C Derivation	0	0	0	10	0	0	0	0	0	0	0	0	10
78/B More Than, Less Than	0	0	0	0	7	0	0	0	0	2	0	0	9
89/Y Substance	5	0	0	1	0	0	0	0	0	0	0	0	6
87/C High Status or Rank	0	0	0	0	4	0	0	0	0	0	0	0	4
89/F Basis	0	0	0	0	0	0	3	0	0	0	0	0	3
89/Q Addition	0	0	0	0	0	0	3	0	0	0	0	0	3
89/V Combinative Relation	2	0	0	0	0	0	0	0	0	0	0	0	2
57/J Exchange	0	0	0	0	0	0	0	2	0	0	0	0	2
59/H Add, Subtract	0	0	0	0	0	0	0	0	0	0	1	0	1
90/D Responsibility	0	0	0	0	0	0	1	0	0	0	0	0	1
59/B Much, Little	0	1	0	0	0	0	0	0	0	0	0	0	1
90/G Guarantor Participant with Oaths	1	0	0	0	0	0	0	0	0	0	0	0	1
36/D Follow, Be a Disciple	0	0	0	0	0	0	0	0	0	1	0	0	1
64 Comparison	0	1	0	0	0	0	0	0	0	0	0	0	1
Total	742	429	411	258	168	57	52	42	13	11	11	9	2203

Table C.21: Intersection of contextual and basic domains, corpus frequencies.

	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/C Extension Along a Path	84/A Extension From a Source	83/I Above, Below	83/D Around, About, Outside	83/H On, Upon, On the Surface Of	83/G Opposite, Over Against, Across From, Offshore From	83/J Beyond, On the Other Side Of	63/G Separate	83/F In Front Of, Face To Face, In Back Of, Behind	83/E At, Beside, Near, Far
89/D Specification	έν	πρός				περί		κατά				
89/T Association	έν κατά μετά (2) μεταξύ παρά πρός											
89/L Means	εις έν		διά	εκ								
89/G Cause and/or Reason	έν		διά	εκ παρά	υπέρ υπό	περί	ἐπί	άντι				
89/I Purpose		εις ἐπί πρός										
89/E Relations Involving Correspondences		πρός	κατά									
89/N Manner	έν			εκ								
90/I Benefaction	μετά	εις ἐπί	διά		υπέρ	περί		άντι				
90/B Instrument	έν		διά	εκ			ἐπί					
90/A Agent	έν		διά	ἀπό	υπό		ἐπί					παρά
90/F Content	έν	εις	διά	ἀπό	υπέρ	περί	ἐπί					πρός
90/C Source of Event or Activity				ἀπό εκ παρά								
90/M Experiencer	έν μετά	εις ἐπί πρός										
89/U Dissociation				ἀπό εκ		ἐκτός				χωρίς		
90/J Reason Participant			διά									
89/M Attendant Circumstances	έν μετά											
89/H Result		εις πρός εις										
13/B Change of State		εις										
13/A State	έν											
90/H Opposition	μετά	ἐπί πρός			υπό		ἐπί	κατά				
37/A Control, Restrain					υπό		ἐπί					
90/E Viewpoint Participant		πρός						κατέναντι			ἐμπροσθεν ἐνώπιον κατενώπιον	παρά
63/D Part				εκ								
78/E Up To, As Much As, To the Degree That		εις ἐπί ὡς μέχρι πρός										
89/W Contrast			κατά				ἐκτός		παρά (2)			
89/P Distribution				εκ								
89/C Derivation				εκ		υπέρ			παρά			
78/B More Than, Less Than					υπέρ							
89/Y Substance	έν			εκ								
87/C High Status or Rank					υπέρ υπεράνω							
89/F Basis							ἐπί					
89/Q Addition							ἐπί					
89/V Combinative Relation	μετά											
57/J Exchange								άντι				
59/H Add, Subtract												παρά
90/D Responsibility		ὡς					ἐπί					
59/B Much, Little												
90/G Guarantor Participant with Oaths	έν										ὀπίσω	
36/D Follow, Be a Disciple												
64 Comparison		πρός										

Table C.22: Intersection of contextual and basic domains, prepositions.

Domains of Intersection		Image Schema	Preposition	Corpus Freq.
Contextual	Basic			
89/T Association	83/C Among, Between, In, Inside	CONTAINMENT/CONTAINER	ἐν (<i>en</i>)	142
		SPACE/LOCATION	μετά (<i>meta</i> , 89.108)	49
			πρός (<i>pros</i>)	9
			κατά (<i>kata</i>)	4
			μετά (<i>meta</i> , 89.109)	2
			παρά (<i>para</i>)	2
μεταξύ (<i>metaxy</i>)	1			
89/G Cause and/or Reason	83/I Above, Below	SPACE/LOCATION	ὑπέρ (<i>hyper</i>)	11
		SPACE/UP-DOWN	ὑπό (<i>hypo</i>)	5
90/I Benefaction	84/B Extension To a Goal	SPACE/PATH	εἰς (<i>eis</i>)	26
90/M Experiencer	83/C Among, Between, In, Inside	FORCE/ENABLEMENT	ἐπί (<i>epi</i>)	5
		CONTAINMENT/CONTAINER	ἐν (<i>en</i>)	8
78/E Up To, As Much As, To the Degree That	84/B Extension To a Goal	SPACE/LOCATION	μετά (<i>meta</i>)	3
		SPACE/SCALE	εἰς (<i>eis</i>)	9
			ἐπί (<i>epi</i>)	2
			ἕως (<i>heos</i>)	2
			μέχρι (<i>mechri</i>)	1
			πρός (<i>pros</i>)	1
εἰς (<i>eis</i>)	99			
89/I Purpose	84/B Extension To a Goal	SPACE/PATH	πρός (<i>pros</i>)	31
		εἰς (<i>eis</i>)	4	
90/M Experiencer	84/B Extension To a Goal	SPACE/PATH	εἰς (<i>eis</i>)	38
		πρός (<i>pros</i>)	20	
90/C Source of Event or Activity	84/A Extension From a Source	SPACE/PATH	ἐκ (<i>ek</i>)	16
		ἀπό (<i>apo</i>)	66	
		παρά (<i>para</i>)	33	
		παρά (<i>para</i>)	15	
90/E Viewpoint Participant	83/F In Front Of, Face To Face, In Back Of, Behind	SPACE/LOCATION	ἐνώπιον (<i>enopion</i>)	7
		κατενώπιον (<i>katenopion</i>)	2	
		ἐμπροσθεν (<i>emprosthén</i>)	1	
87/C High Status or Rank	83/I Above, Below	SPACE/UP-DOWN	ὑπέρ (<i>hyper</i>)	3
		ὑπεράνω (<i>hyperanō</i>)	1	
89/G Cause and/or Reason	84/A Extension From a Source	SPACE/PATH	ἐκ (<i>ek</i>)	26
		παρά (<i>para</i>)	2	
89/H Result	84/B Extension To a Goal	SPACE/PATH	εἰς (<i>eis</i>)	36
		πρός (<i>pros</i>)	2	
89/L Means	83/C Among, Between, In, Inside	CONTAINMENT/CONTAINER	ἐν (<i>en</i>)	23
		εἰς (<i>eis</i>)	4	
89/M Attendant Circumstances	83/C Among, Between, In, Inside	SPACE/LOCATION	ἐν (<i>en</i>)	35
		μετά (<i>meta</i>)	11	
89/U Dissociation	84/A Extension From a Source	SPACE/PATH	ἀπό (<i>apo</i>)	44
		ἐκ (<i>ek</i>)	9	
90/H Opposition	84/B Extension To a Goal	FORCE/RESISTANCE	πρός (<i>pros</i>)	7
		ἐπί (<i>epi</i>)	5	
89/W Contrast	83/J Beyond, On the Other Side Of	CONTAINMENT/CONTAINER	παρά (<i>para</i> , 89.137)	6
		παρά (<i>para</i> , 89.132)	3	

Table C.23: Intersection of contextual and basic domains having multiple image schemas and prepositions.

Preposition	Transliteration	Contextual Domains and List Frequencies																																												
		89/G Cause and/or Reason	89/T Association	90/I Benefaction	90/A Agent	90/E Viewpoint Participant	78/E To the Degree That	90/F Content	90/M Experienter	89/D Specification	89/L Means	89/U Dissociation	90/B Instrument	90/H Opposition	89/J Purpose	89/W Contrast	90/C Source of Event or Activity	37/A Control, Restrain	78/B More Than, Less Than	87/C High Status or Rank	89/E Correspondences	89/H Result	89/M Attendant Circumstances	89/N Manner	89/Y Substance	13/A State	13/B Change of State	36/D Follow, Be a Disciple	57/J Exchange	59/B Much, Little	59/H Add, Subtract	63/D Part	64/	89/C Derivation	89/F Basis	89/P Distribution	89/Q Addition	89/V Combinative Relation	90/D Responsibility	90/G Oaths	90/J Reason Participant					
ἐπί	epi	1	0	1	1	0	1	1	1	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0				
ἐν	en	1	1	0	1	0	0	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0			
πρός	pros	0	1	0	0	1	1	1	1	1	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0			
ἐκ	ek	1	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0			
παρά	para	1	1	0	1	1	0	0	0	0	0	0	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0			
εἰς	eis	0	0	1	0	0	1	1	1	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			
μετά	meta	0	2	1	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0			
διά	dia	1	0	1	1	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0		
κατά	kata	0	1	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0		
ὑπέρ	hyper	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
περί	peri	1	0	1	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἀντί	anti	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ἀπό	apo	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ὑπό	hypo	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ἐκτός	ektos	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ἔως	heos	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ἐμπροσθεν	emprosthen	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ἐνώπιον	enōpion	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
κατέναντι	katenanti	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
κατενώπιον	katēnōpion	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
μεταξὺ	metaxy	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
μέχρι	mechri	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ὀπίσω	opisō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ὑπεράνω	hyperanō	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
χωρίς	chōris	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Table C.24: Abstract metaphoric prepositions and their contextual domains, list frequencies.

Preposition	Transliteration	89/D Specification	89/T Association	89/L Means	89/G Cause and/or Reason	89/I Purpose	89/E Correspondences	89/N Manner	90/I Benefaction	90/B Instrument	90/A Agent	90/F Content	90/C Source	90/M Experienter	89/U Dissociation	90/J Reason Participant	89/M Attendant Circumstances	13/B Change of State	89/H Result	13/A State	90/H Opposition	37/A Control, Restrain	90/E Viewpoint Participant	63/D Part	78/E To the Degree That	89/W Contrast	89/P Distribution	89/C Derivation	78/B More Than, Less Than	89/Y Substance	87/C High Status or Rank	89/F Basis	89/Q Addition	57/J Exchange	89/V Combinative Relation	36/D Follow, Be a Disciple	59/B Much, Little	59/H Add, Subtract	64/Comparison	90/D Responsibility	90/G Oaths		
ἐν	en	151	142	23	26	0	0	118	0	73	39	0	0	8	0	0	35	0	0	31	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	0	1		
εἰς	eis	0	0	4	0	99	0	0	26	0	0	69	0	38	0	0	0	38	36	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
διὰ	dia	0	0	85	38	0	0	0	19	44	28	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
κατὰ	kata	23	4	0	0	0	126	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἐκ	ek	0	0	27	26	0	0	5	0	1	0	0	66	0	9	0	0	0	0	0	0	0	15	0	0	0	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0		
ὑπέρ	hyper	0	0	0	11	0	0	0	62	0	0	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	3	0	0	0	0	0	0	0	0	0	0	0		
πρός	pros	9	9	0	0	31	5	0	0	0	0	1	0	20	0	0	0	2	0	7	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0		
ἐπί	epi	0	0	0	25	4	0	0	5	1	2	14	0	16	0	0	0	0	0	5	3	0	0	2	0	0	0	0	0	0	3	3	0	0	0	0	0	0	0	1	0		
ἀπό	apo	0	0	0	0	0	0	0	0	0	4	0	33	0	44	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
μετά	meta	0	51 ¹⁵	0	0	0	0	0	1	0	0	0	3	0	0	11	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0			
ὑπό	hypo	0	0	0	5	0	0	0	0	0	0	42	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
περί	peri	27	0	0	2	0	0	0	8	0	0	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
παρά	para	0	2	0	2	0	0	0	0	0	2	0	15	0	0	0	0	0	0	0	0	5	0	0	9 ¹⁶	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0
χωρίς	chōris	0	0	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἐνώπιον	enōpion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἀντί	anti	0	0	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0		
ἐκτός	ektos	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἕως	heōs	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0		
κατενώπιον	katenōpion	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ἐμπροσθεν	emprosthen	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
κατέναντι	katenanti	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
μεταξύ	metaxy	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
μέχρι	mechri	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
ὀπίσω	opiso	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0		
ὑπεράνω	hyperano	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0		

Table C.25: Abstract metaphoric prepositions and their contextual domains, corpus frequencies.

¹⁵Two senses of μετά in this intersection with the contextual domain of 89/T Association: *with (association)* and *with (accompanying object)* with frequencies of 49 and 2, respectively.

¹⁶Two senses of παρά in this intersection with the contextual domain of 89/W Contrast: *h instead of (contrast)* and *g contrary to (opposition)* with frequencies of 3 and 6, respectively.

Preposition	Transliteration	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/A Extension From a Source	83/H On, Upon, On the Surface Of	83/I Above, Below	84/C Extension Along a Path	83/D Around, About, Outside	83/E At, Beside, Near, Far	83/G Opposite, Over Against	83/F In Front Of, Behind	83/J Beyond, On the Other Side Of	63/G Separate
ἐπί	epi	0	5	0	8	0	0	0	0	0	0	0	0
ἐν	en	12	0	0	0	0	0	0	0	0	0	0	0
πρός	pros	1	8	0	0	0	0	0	2	0	0	0	0
ἐκ	ek	0	0	9	0	0	0	0	0	0	0	0	0
παρά	para	1	0	2	0	0	0	0	4	0	0	2	0
εἰς	eis	1	7	0	0	0	0	0	0	0	0	0	0
μετά	meta	7	0	0	0	0	0	0	0	0	0	0	0
διά	dia	0	0	0	0	0	6	0	0	0	0	0	0
κατά	kata	1	0	0	0	0	2	0	0	2	0	0	0
ὑπέρ	hyper	0	0	0	0	5	0	0	0	0	0	0	0
περί	peri	0	0	0	0	0	0	4	0	0	0	0	0
ἀντί	anti	0	0	0	0	0	0	0	0	3	0	0	0
ἀπό	apo	0	0	3	0	0	0	0	0	0	0	0	0
ὑπό	hypo	0	0	0	0	3	0	0	0	0	0	0	0
ἐκτός	ektos	0	0	0	0	0	0	2	0	0	0	0	0
ἕως	heōs	0	2	0	0	0	0	0	0	0	0	0	0
ἔμπροσθεν	emprosthen	0	0	0	0	0	0	0	0	0	1	0	0
ἐνώπιον	enōpion	0	0	0	0	0	0	0	0	0	1	0	0
κατέναντι	katenanti	0	0	0	0	0	0	0	0	1	0	0	0
κατενώπιον	katenōpion	0	0	0	0	0	0	0	0	0	1	0	0
μεταξύ	metaxy	1	0	0	0	0	0	0	0	0	0	0	0
μέχρι	mechri	0	1	0	0	0	0	0	0	0	0	0	0
ὀπίσω	opisō	0	0	0	0	0	0	0	0	0	1	0	0
ὑπεράνω	hyperanō	0	0	0	0	1	0	0	0	0	0	0	0
χωρίς	chōris	0	0	0	0	0	0	0	0	0	0	0	1

Table C.26: Abstract metaphoric prepositions and their basic domains, list frequencies.

Preposition	Transliteration	83/C Among, Between, In, Inside	84/B Extension To a Goal	84/C Extension Along a Path	84/A Extension From a Source	83/I Above, Below	83/D Around, About, Outside	83/H On, Upon, On the Surface Of	83/G Opposite, Over Against	83/J Beyond, On the Other Side Of	63/G Separate	83/E At, Beside, Near, Far	83/F In Front Of, Behind
ἐν	en	652	0	0	0	0	0	0	0	0	0	0	0
εἰς	eis	4	315	0	0	0	0	0	0	0	0	0	0
διά	dia	0	0	274	0	0	0	0	0	0	0	0	0
κατά	kata	4	0	137	0	0	0	0	36	0	0	0	0
ἐκ	ek	0	0	0	160	0	0	0	0	0	0	0	0
ὑπέρ	hyper	0	0	0	0	99	0	0	0	0	0	0	0
πρός	pros	9	77	0	0	0	0	0	0	0	0	2	0
ἐπί	epi	0	32	0	0	0	0	52	0	0	0	0	0
ἀπό	apo	0	0	0	81	0	0	0	0	0	0	0	0
μετά	meta	70	0	0	0	0	0	0	0	0	0	0	0
ὑπό	hypo	0	0	0	0	68	0	0	0	0	0	0	0
περί	peri	0	0	0	0	0	52	0	0	0	0	0	0
παρά	para	2	0	0	17	0	0	0	0	9	0	10	0
χωρίς	chōris	0	0	0	0	0	0	0	0	0	13	0	0
ἐνώπιον	enōpion	0	0	0	0	0	0	0	0	0	0	0	7
ἀντί	anti	0	0	0	0	0	0	0	5	0	0	0	0
ἐκτός	ektos	0	0	0	0	0	5	0	0	0	0	0	0
ἕως	heōs	0	3	0	0	0	0	0	0	0	0	0	0
κατενώπιον	katenōpion	0	0	0	0	0	0	0	0	0	0	0	2
ἔμπροσθεν	emprosthen	0	0	0	0	0	0	0	0	0	0	0	1
κατέναντι	katenanti	0	0	0	0	0	0	0	1	0	0	0	0
μεταξύ	metaxy	1	0	0	0	0	0	0	0	0	0	0	0
μέχρι	mechri	0	1	0	0	0	0	0	0	0	0	0	0
ὀπίσω	opisō	0	0	0	0	0	0	0	0	0	0	0	1
ὑπεράνω	hyperanō	0	0	0	0	1	0	0	0	0	0	0	0

Table C.27: Abstract metaphoric prepositions and their basic domains, corpus frequencies.

C.9 Translation of Prepositions

C.10 Contextual-Basic Gloss Analysis

	CDef	COthSen	COthPrep	CNoPrep	NoTr	Total
BDef	42	43	2	0	0	87
BOthSen	13	44	1	0	0	58
BOthPrep	17	30	25	0	0	72
BNoPrep	59	49	19	32	0	159
NoTr	0	0	0	0	69	69
Total	131	166	47	32	69	445

Table C.28: Translation analysis, list frequencies.

	CDef	COthSen	COthPrep	CNoPrep	NoTr	Total
BDef	9.44%	9.66%	0.45%	0.00%	0.00%	19.55%
BOthSen	2.92%	9.89%	0.22%	0.00%	0.00%	13.03%
BOthPrep	3.82%	6.74%	5.62%	0.00%	0.00%	16.18%
BNoPrep	13.26%	11.01%	4.27%	7.19%	0.00%	35.73%
NoTr	0.00%	0.00%	0.00%	0.00%	15.51%	15.51%
Total	29.44%	37.30%	10.56%	7.19%	15.51%	100.00%

Table C.29: Translation analysis, list percentages.

C.11 Corpus Distributions of Contextual-Basic Percentages

	CDef	COthPrep	COthSen	NoTr	Total
BDef	0.77%	0.00%	0.00%	0.00%	0.77%
BNoPrep	0.00%	0.05%	0.05%	0.00%	0.09%
BOthPrep	0.00%	0.05%	0.00%	0.00%	0.05%
NoTr	0.00%	0.00%	0.00%	0.05%	0.05%
Total	0.77%	0.09%	0.05%	0.05%	0.95%

Table C.30: 100P-Freq-P

	CDef	NoTr	COthSen	Total
BDef	1.04%	0.00%	0.00%	1.04%
BNoPrep	0.36%	0.00%	0.00%	0.36%
NoTr	0.00%	0.23%	0.00%	0.23%
BOthPrep	0.00%	0.00%	0.09%	0.09%
Total	1.41%	0.23%	0.09%	1.72%

Table C.31: 067P-Freq-P

	CDef	COthSen	NoTr	COthPrep	CNoPrep	Total
BDef	9.99%	0.14%	0.00%	0.05%	0.00%	10.17%
BOthPrep	1.63%	0.05%	0.00%	0.41%	0.00%	2.09%
BOthSen	0.23%	1.41%	0.00%	0.00%	0.00%	1.63%
BNoPrep	0.00%	0.45%	0.00%	0.05%	0.09%	0.59%
NoTr	0.00%	0.00%	0.54%	0.00%	0.00%	0.54%
Total	11.85%	2.04%	0.54%	0.50%	0.09%	15.02%

Table C.32: 050P-Freq-P

	CDef	COthSen	NoTr	CNoPrep	COthPrep	Total
BDef	8.81%	0.05%	0.00%	0.00%	0.00%	8.85%
BOthPrep	1.27%	0.32%	0.00%	0.00%	0.14%	1.72%
BNoPrep	0.64%	0.18%	0.00%	0.23%	0.00%	1.04%
BOthSen	0.23%	0.73%	0.00%	0.00%	0.05%	1.00%
NoTr	0.00%	0.00%	0.68%	0.00%	0.00%	0.68%
Total	10.94%	1.27%	0.68%	0.23%	0.18%	13.30%

Table C.33: 033P-Freq-P

	CDef	COthSen	COthPrep	NoTr	CNoPrep	Total
BDef	12.30%	0.14%	0.00%	0.00%	0.00%	12.44%
BOthSen	0.00%	1.04%	0.00%	0.00%	0.00%	1.04%
BNoPrep	0.09%	0.05%	0.05%	0.00%	0.05%	0.23%
NoTr	0.00%	0.00%	0.00%	0.14%	0.00%	0.14%
BOthPrep	0.00%	0.00%	0.09%	0.00%	0.00%	0.09%
Total	12.39%	1.23%	0.14%	0.14%	0.05%	13.94%

Table C.34: 025P-Freq-P

	COthSen	CDef	COthPrep	NoTr	CNoPrep	Total
BNoPrep	6.45%	12.66%	5.54%	0.00%	1.82%	26.46%
BDef	11.21%	0.09%	0.09%	0.00%	0.00%	11.39%
BOthSen	2.59%	5.08%	0.00%	0.00%	0.00%	7.67%
BOthPrep	2.41%	3.90%	1.04%	0.00%	0.00%	7.35%
NoTr	0.00%	0.00%	0.00%	2.18%	0.00%	2.18%
Total	22.65%	21.74%	6.67%	2.18%	1.82%	55.06%

Table C.35: 000P-Freq-P

C.12 Analysis of Literal Translations from Definition

Preposition	Translation	Image Schema	Contextual Domain	Corpus Frequency		
				Translation	Prep. Sense	% Trans./Prep.
διά (<i>dia</i>)	"through"	SPACE/PATH	89/L Means	70	85	82.35%
διά (<i>dia</i>)	"through"	SPACE/PATH	90/A Agent	22	28	78.57%
διά (<i>dia</i>)	"through"	SPACE/PATH	90/B Instrument	25	44	56.82%
εἰς (<i>eis</i>)	"to"	SPACE/PATH	15/B Change of State	13	38	34.21%
εἰς (<i>eis</i>)	"to"	SPACE/PATH	90/M Experiencer	16	38	42.11%
εἰς (<i>eis</i>)	"toward"	SPACE/PATH	90/M Experiencer	7	38	18.42%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	89/M Attendant Circumstances	11	11	100.00%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	89/T Association	50	51	98.04%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	89/V Combinative Relation	2	2	100.00%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	90/H Opposition	2	2	100.00%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	90/I Benefaction	1	1	100.00%
μετά (<i>meta</i>)	"with"	SPACE/LOCATION	90/M Experiencer	3	3	100.00%
παρά (<i>para</i>)	"from"	SPACE/PATH	90/C Source of Event or Activity	12	15	80.00%
παρά (<i>para</i>)	"over"	SPACE/SCALE	78/B More Than, Less Than	1	2	50.00%
παρά (<i>para</i>)	"with"	SPACE/LOCATION	89/T Association	2	2	100.00%
πρός (<i>pros</i>)	"against"	FORCE/RESISTANCE	90/H Opposition	7	7	100.00%
πρός (<i>pros</i>)	"to"	SPACE/PATH	90/M Experiencer	11	20	55.00%
πρός (<i>pros</i>)	"with"	SPACE/LOCATION	89/T Association	8	9	88.89%
ἀπό (<i>apo</i>)	"from"	SPACE/PATH	89/U Dissociation	42	44	95.45%
ἀπό (<i>apo</i>)	"from"	SPACE/PATH	90/A Agent	3	4	75.00%
ἀπό (<i>apo</i>)	"from"	SPACE/PATH	90/C Source of Event or Activity	32	33	96.97%
ἐκ (<i>ek</i>)	"from"	SPACE/PATH	89/C Derivation	8	10	80.00%
ἐκ (<i>ek</i>)	"from"	SPACE/PATH	89/L Means	1	27	3.70%
ἐκ (<i>ek</i>)	"from"	SPACE/PATH	89/N Manner	3	5	60.00%
ἐκ (<i>ek</i>)	"from"	SPACE/PATH	89/U Dissociation	9	9	100.00%
ἐκ (<i>ek</i>)	"from"	SPACE/PATH	90/C Source of Event or Activity	50	66	75.76%
ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	89/D Specification	135	151	89.40%
ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	89/T Association	127	142	89.44%
ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	89/Y Substance	2	5	40.00%
ἐν (<i>en</i>)	"in"	SPACE/LOCATION	15/A State	21	31	67.74%
ἐν (<i>en</i>)	"with"	SPACE/LOCATION	89/M Attendant Circumstances	6	35	17.14%
ἐπὶ (<i>epi</i>)	"to"	SPACE/PATH	90/M Experiencer	1	16	6.25%
ὑπέρ (<i>hyper</i>)	"above"	SPACE/UP-DOWN	87/C High Status or Rank	1	3	33.33%
ὑπέρ (<i>hyper</i>)	"beyond"	SPACE/SCALE	78/B More Than, Less Than	3	7	42.86%
ὑπερένωτο (<i>hyperanō</i>)	"above"	SPACE/UP-DOWN	87/C High Status or Rank	1	1	100.00%
ὑπό (<i>hypo</i>)	"under"	SPACE/UP-DOWN	37/A Control, Restrain	19	21	90.48%

Table C.36: List of CDef/BDef translations.

C.13 Analysis of Literal Translations from Other Definitions

Translation Label	Preposition	Translation	Image Schema	Contextual Domain	Corpus Frequency		
					Translation	Prep. Sense	% Trans./Prep.
CDef/B0thPrep	διὰ (<i>dia</i>)	"by"	SPACE/PATH	<i>89/L Means</i>	11	85	12.94%
CDef/B0thPrep	διὰ (<i>dia</i>)	"by"	SPACE/PATH	<i>90/A Agent</i>	5	28	17.86%
CDef/B0thPrep	διὰ (<i>dia</i>)	"by"	SPACE/PATH	<i>90/B Instrument</i>	14	44	31.82%
CDef/B0thPrep	ἐκ (<i>ek</i>)	"by"	SPACE/PATH	<i>89/L Means</i>	20	27	74.07%
CDef/B0thPrep	ἐκ (<i>ek</i>)	"by"	SPACE/PATH	<i>90/C Source of Event or Activity</i>	7	66	10.61%
CDef/B0thPrep	ὑπό (<i>hypo</i>)	"by"	SPACE/UP-DOWN	<i>90/A Agent</i>	41	42	97.62%
CDef/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>89/L Means</i>	11	23	47.83%
CDef/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>90/A Agent</i>	16	39	41.03%
CDef/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>90/B Instrument</i>	16	73	21.92%
CDef/B0thSen	ἐν (<i>en</i>)	"with"	CONTAINMENT/CONTAINER	<i>89/N Manner</i>	38	118	32.20%
CDef/B0thSen	ἐν (<i>en</i>)	"with"	CONTAINMENT/CONTAINER	<i>90/B Instrument</i>	27	73	36.99%
C0thSen/BDef	διὰ (<i>dia</i>)	"through"	SPACE/PATH	<i>89/G Cause and/or Reason</i>	10	38	26.32%
C0thSen/BDef	διὰ (<i>dia</i>)	"through"	SPACE/PATH	<i>90/J Reason Participant</i>	11	60	18.33%
C0thSen/BDef	εἰς (<i>eis</i>)	"to"	SPACE/PATH	<i>89/I Purpose</i>	13	99	13.13%
C0thSen/BDef	εἰς (<i>eis</i>)	"to"	SPACE/PATH	<i>90/F Content</i>	15	69	21.74%
C0thSen/BDef	εἰς (<i>eis</i>)	"toward"	SPACE/PATH	<i>90/F Content</i>	6	69	8.70%
C0thSen/BDef	ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	<i>89/G Cause and/or Reason</i>	15	26	57.69%
C0thSen/BDef	ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	<i>89/L Means</i>	9	23	39.13%
C0thSen/BDef	ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	<i>89/N Manner</i>	62	118	52.54%
C0thSen/BDef	ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	<i>90/A Agent</i>	19	39	48.72%
C0thSen/BDef	ἐν (<i>en</i>)	"in"	CONTAINMENT/CONTAINER	<i>90/B Instrument</i>	27	73	36.99%
C0thSen/B0thSen	εἰς (<i>eis</i>)	"into"	SPACE/PATH	<i>13/B Change of State</i>	7	38	18.42%
C0thSen/B0thSen	εἰς (<i>eis</i>)	"into"	SPACE/PATH	<i>90/F Content</i>	8	69	11.59%
C0thSen/B0thSen	εἰς (<i>eis</i>)	"to"	SPACE/PATH	<i>90/I Benefaction</i>	7	26	26.92%
C0thSen/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>89/D Specification</i>	6	151	3.97%
C0thSen/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>89/G Cause and/or Reason</i>	5	26	19.23%
C0thSen/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>89/N Manner</i>	8	118	6.78%
C0thSen/B0thSen	ἐν (<i>en</i>)	"by"	CONTAINMENT/CONTAINER	<i>89/T Association</i>	8	142	5.63%
C0thSen/B0thSen	ἐν (<i>en</i>)	"in"	SPACE/LOCATION	<i>89/M Attendant Circumstances</i>	27	35	77.14%
C0thSen/B0thSen	ἐν (<i>en</i>)	"with"	CONTAINMENT/CONTAINER	<i>89/L Means</i>	3	23	13.04%
C0thSen/B0thSen	ἐν (<i>en</i>)	"with"	CONTAINMENT/CONTAINER	<i>89/T Association</i>	5	142	3.52%
C0thSen/B0thSen	ἐπὶ (<i>epi</i>)	"upon"	SPACE/PATH	<i>90/M Experiencer</i>	5	16	31.25%

Table C.37: List of analyzed non-CDef/BDef basic gloss translation label pairs.

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